AMERICAN GAS ASSOCIATION MONTHLY

Vol. VI No. 6

JUNE, 1924

"GOOD equipment will meet only half the problem—right human relations, the remainder."

ARTHUR H. YOUNG,
International Harvester Co.

Old Proceedings Available

The Association has in stock some copies of the older American Gas Institute and National Commercial Gas Association proceedings which may be of value to our members.

Do you want them?

A. G. I. Proceedings, Vol. IV (1909) 1 copy—$2.00
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A. G. I. Proceedings, Vol. VIII, Part 1 (1913) 2 copies—$2.00 each
A. G. I. Proceedings, Vol. IX, Part 1 (1914) 3 copies—$2.00 each
A. G. I. Proceedings, Vol. IX, Part 2 (1914) 2 copies—$2.00 each
N. C. G. A. Proceedings, 1914, 1 copy—$1.00
N. C. G. A. Proceedings, 1915, 1 copy—$1.00

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FOR STATEMENTS AND OPINIONS CONTAINED IN PAPERS AND DISCUSSIONS APPEARING HEREIN, THE ASSOCIATION DOES NOT HOLD ITSELF RESPONSIBLE

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American Gas Association Monthly

Vol. VI JUNE, 1924 No. 6

Preparedness

Those in charge of gas manufacture would no more think of leaving the placing of orders for coal, oil and other vital manufacturing supplies until the last minute than they would think of blowing up their gas plants. In fact, such unpreparedness might be just as disastrous as any such destruction. On the contrary, due to their foresight, there are always ample supplies on hand well in advance of the time of use. They are always prepared.

Those in charge of distribution likewise anticipate their needs. They do not wait until the last minute to order pipe fittings, meters, etc. They plan in advance, anticipating future needs and are well prepared to carry on the work at the time of necessity. They are always prepared.

But in too many cases this cannot be said of the commercial departments. And by commercial, we mean the merchandising end of the business.

There are far, far too many instances where no preparation is made in advance on either special sales plans or even the general sales routine. Too many instances when sales plans are carried out on the hit or miss system. Those in charge do not seem to have grasped the preparedness idea as have the others. They do not see the necessity of charting their sales course.

First, this is unfair to the industry as a whole; second, to the consumers of those companies; and third, to the manufacturer of gas appliances.

It is unfair to the industry because, through such unpreparedness there is not the increase in gas sales that it would have been possible to obtain with plans carefully and well thought out and provided for in advance.

It is unfair to the consumer because, through such unpreparedness every possible advantage of gas service that can be given him is not adequately brought to his attention.

It is unfair to the manufacturer because, due to this unpreparedness on the part of those in charge, he is often asked to supply appliances at the last minute which he should have been able to figure on long in advance. This not only unreasonably handicaps him in his production, but may also affect the service which he is able to give the company and therefore give the industry and its consumers.

Why should not every commercial department believe in and practice preparedness?

AMERICAN GAS ASSOCIATION MONTHLY

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The Utility and the Town—the Siamese Twins of Society

Based on a communication from R. M. Searle, President of the Rochester Gas and Electric Corporation.

NEITHER THE CONSUMER who pays his gas bill, the politician who listens to the consumer who pays his gas bill, nor the legislator or city executive who bows to the politician who listens to the consumer who pays his gas bill—a regular "house that Jack built" when you get through with it—are really aware, though they have been told a thousand times, exactly what the prosperity of the local gas company means to the prosperity of their community as a whole.

Indeed, it is doubtful if most gas companies are sufficiently appreciative of their own high place in the civic life of the town. They owe it to the public, if not to themselves, to broadcast as widely as possible some of the numerous beneficent activities in which our utilities are engaged, and which are not necessarily or directly connected with the efficient service of gas, electricity or transportation.

Such activities, which may well be called "extra-curricular," depend, of course, on the public relations policy of the particular company involved. We believe that in most cities of the country both the company and the consumer have freed themselves from the notion that "each is out to do the other." As a matter of fact, they are beginning to go much further than the mere destruction of a prejudice.

After all, what is there in the oft-repeated assertion that "the utility can grow no faster than the community which it serves" and vice versa? Anything? Or is it just another bid for favor on the part of the corporation? Well, it might be; but, fortunately, the evidence is all to the contrary.

For the past month we have been collecting material here and there, in a kind of a hit-or-miss fashion, indicating some of the amazingly diverse ways in which gas companies are taking part, officially and otherwise, in municipal life and civic betterment. They range all the way from painting the holder red, white and blue, metaphorically speaking, to contributions for charity, and all the way back again to leadership in the boosters' fraternity. And they do not consist in hiding anyone's light beneath a bushel. It is one thing to do good; but it is still better to

be favorably and widely known as a benefactor.

Rochester's Cooperation

The Rochester Gas and Electric Corporation is an outstanding example of close cooperation, amounting almost to a mutual interlacing of interest, between the public utility and the city. How this has been achieved is contained in an exceedingly interesting letter recently received from President R. M. Searle, who is also a past president of the Rochester Chamber of Commerce.

All the directors of the company are responsible business men who are interested in the civic, church and school life of the community and who, in the words of Mr. Searle, "assume the obligations which naturally gravitate to them." All the company's local directors are also directors of one or more of the local banks and trust companies. A vice-president of the gas company, recently deceased, was also a past president of the Chamber of Commerce; and the company's vice-president and general manager is now head of the Manufacturer's Council of the Chamber which concerns itself with correlating the special civic and manufacturing problems which are common to the industrial life of the city. The company retains forty memberships in the chamber for department heads and their principal assistants, and these men are all active on various committees having to do with legislation, better citizenship, accident prevention, stabilization of employment, etc.

Some of the Ways

"Expert engineering service," Mr. Searle continues, "is furnished without cost to customers and citizens generally, in the development of new and better manufacturing processes, the modernization of factory equipment and the development of home economics, both through the use of company products and otherwise. This service has been of material service to the community and to society as a whole in the advanced application of scientific research as applied to practical business and home life.

"Illustrated lectures are regularly given by various company experts *on many subjects of public interest,* including the specific work of the company and the industry. These lectures are furnished without charge to churches, clubs, schools and other organizations. The company has recently been instrumental in this connection in placing in the high schools of the city a series of illustrated lectures on the public utility business as a whole. In this work all local public utilities are participating, including the city activities which are of a public utility character.

"A co-operative contact is daily maintained with all local newspapers by giving accurate and up-to-date information on the company and the developments of the gas and electric industries as a whole. These form the basis for attractive news items. In the company's regular paid advertisements, various civic activities, which are of special importance from time to time, such as Fire Prevention, Community Fund, Accident Prevention, Apple Week, etc., are consistently advertised. The company in this connection also takes advertising space in the programs of the local commercial amusement houses, university undergraduate publications, church programs, etc., and utilizes its show windows to play up these activities.

"Contributions of cash, labor, wiring, lighting and appliances are made to worthy civic activities such as the Rochester Industrial Exposition, the Shrine Ball, the Police and Firemen's Balls, church lawn parties and similar ac-

tivities, as the needs of each activity requires.

"Modern gas and electric appliances and scientific instruments have been placed in all the city high schools, as the needs of these institutions require, and expert advice in regard to their uses furnished.

"Space is given in the company's monthly publication to note worthy civic activities such as the work of the Chamber of Commerce, the high schools, and the activities of certain city departments, such as Parks, Public Safety, Public Works, Streets, Snow Cleaning, etc.

"The use of passenger automobiles for the transportation of the orphans of the city on their annual picnic is a regular procedure.

"A twenty-four-hour service in artificial resuscitation by the Schafer Prone Pressure Method and an inhalator service for the administration of carbon dioxide plus oxygen in cases of gas poisoning is supplied to citizens generally, in connection with the work done along these lines by the city hospitals.

"In connection with chemical and other classes of our city high schools and in the scientific work of the Rochester Engineering Society, the company arranges for the inspection of its properties and furnishes guides and literature in this connection.

"A prize essay contest was recently conducted through the purchase of advertising space in the local newspapers and $1,250 in cash prizes paid to school children for essays on the company's business based on these advertisements. This essay contest not only created youthful interest in the company and its business, but stimulated interest on the part of adults in the proper operation of a public utility, and added to civic knowledge and responsibility generally.

"Substantial booth space in the various fraternity and church fairs, city exposition, etc., is regularly taken for the purpose not only of advertising company products and service, but of stimulating civic life and activity in connection with the work of these other organizations.

"In its broad policy of line extensions in connection with the development of suburban property the company has been actuated by the desire to stimulate proper city growth for mutual benefit."

Constructive and Practical

It should be noted, in Mr. Searle's account, that virtually every one of the company's civic activities is along a strictly practical and constructive line. Good will can be established in one of two ways. It can be inculcated by an easy going, "good fellow" attitude, acceding to everything that comes along, giving, giving here and there, and tagging along wherever the procession leads. Not only will this method cost more than it is worth, it is even probable that the result will be not so much goodwill as a sort of tolerant disdain.

Or, goodwill can be earned by real constructive leadership distinguished by a little imagination, a lot of discrimination, and an ounce or two of civic patriotism for its own sake.

"Civic co-operation," says Mr. Searle, "is a systematic procedure which is subject to some variation in extent as individual cases receive the attention of the company's management. It is the desire of the company to carry its full share of responsiblity in connection with civic activities of a general nature without seeking credit, notoriety, or prominence. As a matter of business, we believe that as the city grows and prospers, the company will grow and prosper with it. We further recognize the ethical responsibility of community co-operation which is ours in this connection.

"This policy of generous co-operation, financial assistance, and the contribution of human energy which in the aggregate represents a large amount of money, is continuously resulting in better civic feeling toward the company, larger growth, better service, and expanding opportunities."

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Gas Course at Columbia

THE DEPARTMENT OF CHEMICAL ENGINEERING of Columbia University announces that the course on Production and Distribution of Manufactured Gas will again be given during the Summer Session, July 7 to August 15, 1924.

This is a graduate course in which high standards of scholarship will be maintained. The six points credit given for the completion of the full course may be applied towards the requirements for an advanced degree in Chemical Engineering and Chemistry in practically every first class University or Technical School in the United States.

The course is designed to meet the needs of three classes of students.

First, those who have had college training and some experience in the gas business and desire further information about the scientific principles underlying the practice of gas engineering.

Second, recent graduates of technical schools who are looking forward to employment in the gas industry.

Third, teachers of applied chemistry who desire more information about an industry which is of fundamental importance in practically all branches of industry.

The course is in charge of Professor Jerome J. Morgan, who has had practical experience in the gas industry, and includes both lectures and laboratory work. In the lectures the main object is not to give detailed information about gas works practice, but rather to point out where such information can be obtained and to discuss fully from the chemical engineering standpoint the whys and wherefores of the various steps in modern practice. The discussion includes raw materials for gas making; carbonization at high and low temperatures; oil and blue gas processes; complete gasification; purification of gas; utilization of by-products; distribution and utilization of the finished product.

To aid the members of the class in getting first hand information on present practice, five plant inspection trips and several special illustrated lectures are arranged. The special lectures are by men who are prominent in the gas industry and cover such subjects as vertical retorts, coke ovens, water gas set construction, cracking of hydrocarbon oils, ammonia recovery, laboratory control, distribution and utilization problems, industrial heating, evaluation and gas rates.

In the laboratory the chemical examination of gas house materials and products is studied. The aim of the laboratory work is to give a thorough understanding of the principles of analysis rather than to develop skill in the actual testing. Attention is also given to the "trouble-shooting" function of the chemical engineer in the gas industry. A large scale laboratory coal distillation plant is available for experimental work.

The fees for the course are as follows:

University Fee	$ 6.00
Lectures and Plant Inspection, 3 points	24.00
Laboratory, 3 points	24.00
Laboratory Deposit, returnable less breakage	15.00

The Tale of Two Pictures

The Old.

The New.

From the Saturday Evening Post, Copyright, 1924, by the Curtis Publishing Co.

TWO PICTURES, two stories, one contrast. By a coincidence, these two illustrations appeared in a recent issue of the Saturday Evening Post, and, because they are of peculiar interest to the *Monthy,* Mr. George H. Lorimer kindly gave us permission to reprint them.

Placed side by side, the pictures tell a vivid story of what gas has meant to the American Home, eliminating the drudgery of domestic life, and preserving the vital energies of women. The woman on the left, faded and worn, belongs to a generation which had scarcely begun to appreciate what science could do for her. The black, sooty, coal stove, with its multitudinous array of pots and pans, and the dismal, dimly lit interior of the kitchen, are perfectly reflected in the worried expression of the face, haunted by a thousand household troubles.

The other interior, except for the clean, shiny range and the bustling activity, would scarcely be recognized for a kitchen. It is merely another room in the house, cheery, well lighted, colorful, even to the lithograph hanging on the wall; but the cheeriness comes less from the surroundings than it does from the unaffected joy of reunion that comes at the end of every day. In five minutes more an appetizing, well cooked dinner, which was begun less than half an hour ago, will be steaming on the table.

Of course, this is not the story which the respective artists were assigned to illustrate. We have merely taken the liberty of "illustrating" the pictures.

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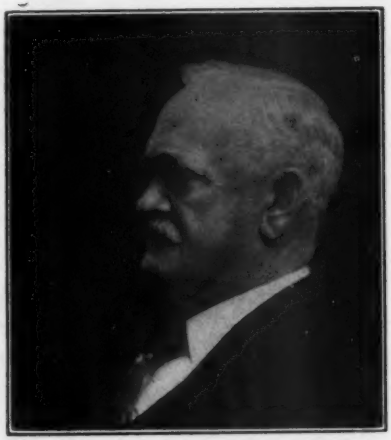
Affiliated Association Notes

Iowa District Gas Association



L. L. Kellogg

The 19th Annual Convention of this Association was held in Sioux City, Iowa, on April 16, 17 and 18. A most interesting program was presented by President Charles Smith and Secretary-Treasurer H. R. Sterrett.

The papers delivered were as follows: "Coke" by W. M. Warren; "The Installation of Hotel Gas Ranges in Rochester, Minn." by R. C. Beebe; "Public Relations and Customer Ownership" by L. O. Gordon; "Specifications and Appliance Testing," N. T. Sellman; "Inspecting and Balancing a Water Gas Set," C. A. Bland; "Coal-Coke Mixtures for Generator Fuel," J. M. Williamson; and "Bookkeeping Without Books" by George F. Myers.

Mr. W. J. Bertke of Sioux City acted as toastmaster at the banquet which was attended by about 250. The banquet program was built around Mr. L. L. Kellogg, one of the founders and the first president of this Association, who has just completed fifty years in the gas business. After a very fine musical program, Mr. Walton Clark of the United Gas Improvement Company, Philadelphia, made the principal address which was in the nature of a description of Mr. Kellogg's connections with the gas industry during the last fifty years. This was followed by the reading of congratulatory letters and telegrams from many of Mr. Kellogg's friends, and then Colonel E. G. Pratt, formerly of The United Gas Improvement Company and an old colleague of Mr. Kellogg's, presented a very beautiful sterling silver coffee service to Mr. and Mrs. Kellogg as an expression of appreciation from the Iowa District Gas Association.

The officers and members of council elected for 1924-25 are as follows: President, H. J. Carson, Cedar Rapids, Iowa; First Vice-President, C. M. Benedict, Des Moines, Iowa; Sec. Vice-President, Frank S. Edge, Grinnell, Iowa; Secretary-Treasurer, H. R. Sterrett, Des Moines, Iowa; Council: H. V. Armstrong, C. A. Nash, H. R. Stephenson, B. W. Cowperthwaite, H. L. Green, and E. L. Vierigg.

Empire State Gas & Electric Association

The Commercial Section of this Association will hold its annual meeting on Thursday, June 19, in the auditorium of the Buffalo General Electric Co., Buffalo, and on Friday, June 20, in the auditorium of the Niagara Falls Power Co., Niagara Falls. The sessions will open at 10 a. m. with the afternoons free for inspection trips.

Wisconsin Utilities Association

This Association held its Second Annual Convention in Milwaukee, Wisconsin, on April 17 and 18, 1924, "in the interest of safe, efficient, continuous public utility service." The papers presented of particular interest to gas men were: "The Removal of Naphthalene by Washing with Gas Oils," Prof. O. L. Kowalke and R. L. Rundorff; "The Advantage of Installing Back Run Gas Apparatus," F. W. Steere; "Service the Watchword of Business," W. S. Vivian; "The Effect of Gravity of Gas on the Discharge from a Burner Cock," Prof. O. L. Kowalke and R. L. Rundorff; and "Industrial Uses of Gas," N. T. Sellman.

The officers elected for the ensuing year are as follows: G. C. Neff, President; L. L. Lessier, Vice-President; H. A. Smith, Treasurer; J. G. Felton, Chairman Gas Section, and John N. Cadby, Executive Secretary.

Affiliated Association Notes

Southwestern Public Service Association

The Twentieth Annual Convention of the Southwestern Public Service Association and the Fourth Annual Convention of the Southwestern Geographic Division, N. E. L. A., held for the first time in the history of either association at New Orleans, April 22-25, drew the largest attendance ever registered at a convention of either association, with a registration of about 600. Enthusiasm prevailed and southern hospitality and entertainment were abundantly manifest.

Alexander Forward, Secretary-Manager, American Gas Association, taking for his theme "A Giant Awakened," outlined the rapid progress of the use of gas in spite of prophecies made time after time that the gas industry was about to decline. He, too, stressed the necessity of fully acquainting the public with the facilities offered by the gas utilities and problems arising from the the necessity for rendering service.

"Building True Conception of Utilities in the Public Mind" by E. F. Wickwire, Vice-President, Ohio Brass Company, Mansfield, Ohio, was one of the outstanding addresses on public relations. Rendering good service, the speaker pointed out, while it is the basic essential of good relations, cannot create good will without publicity, and publicity unsupported by service is less effective. The company must sell itself as well as its service to the public.

Three most enthusiastic and well-attended meetings of the gas utility men were held, including one entire session devoted to the discussion of the results of research in welding cast iron pipe joints, together with a practical demonstration staged at the shops of the New Orleans Public Service Incorporated, by H. Y. Carsons, Research Engineer of the American Cast Iron Pipe & Foundry Company, in collaboration with the Linde Air Products Company and the gas department of the New Orleans Public Service. There was also discussion and papers on testing gas appliances for approval, by C. B. McKinney, Municipal Gas Company, Dallas, W. B. Way, Secretary Natural Gas Association of America, Alexander Forward, Secretary-Manager, American Gas Association, and others; "Maintenance and Repairs of Domestic Meters" by T. P. Walker, Baton Rouge Electric Co.; "How to Increase Industrial Gas Sales," F. H. Cauley, Peoples Gas Light & Coke Co., Chicago; "How Can the Manufacturer Assist the Gas Company?", F. A. Lemke, The Humphrey Company; "Uniform Classification of Accounts," J. M. Roberts, Peoples Gas Light & Coke Co., Chicago; "Rate Structure for Selling Gas," F. J. Schwab, New Orleans Public Service Inc.; "Meter Deposits, Collection and Cut-Offs," C. K. Fletcher, Ft. Worth Gas Company.

The officers elected were: President, G. W. Fry, West Texas Utilities Co., Abilene; First Vice-President and Chairman Light & Power Section, A. F. Townsend, Eastern Texas Electric Co., Beaumont; Sec. Vice-President and Chairman Railway Section, W. E. Wood, Houston Electric Co., Houston; Third Vice-President and Chairman Gas Section, F. C. Armbruster, Southwestern Gas & Electric Co., Shreveport; Treasurer, F. J. Gannon, Northern Texas Traction Co., Ft. Worth; Secretary, E. N. Willis, 403 Slaughter Building, Dallas.

Indiana Gas Association

The program presented at the Sixteenth Annual Meeting of the Indiana Gas Association, held at West Baden, Indiana, proved to be a particularly interesting one. The address of President Leonard Fitzgerald was very optimistic in regard to the future of the gas industry and contained several suggestions, which were not only food for thought, but called for action.

Addresses were delivered by Secretary-Manager Alexander Forward of the American Gas Association; by James W. Dunbar, former U. S. Congressman from 3rd District Indiana, on "Reduction of National Debt and Taxes"; and by Jamie Herron on "Service."

The following papers were presented: "Converting a Water Gas Distribution System to Use Coke Oven Gas" by C. C. Jones; "Recent Developments and Improvements in Gas Making Machinery" by F. H. Beebe; "Industrial Gas" by W. D. Thompson; "Station Meters Compared" by Philip J. Wilson, Jr., and "Customer Ownership and What It Means to You" by W. A. Pennington.

Mr. G. M. Johnson of South Bend was unanimously elected President for the coming year, together with H. J. Roach of Crawfordsville as Vice-President, and E. J. Burke of Indianapolis as Secretary-Treasurer, the Board of Directors to consist of T. J. Spragle, I. C. Shepard, C. L. Kirk, J. C. Martin and Harry Flint.

Henry M. Byllesby

HENRY M. BYLLESBY, president of H. M. Byllesby & Company of Chicago, died suddenly on Thursday, May 1.

He was born in Pittsburgh, Pa., February 16, 1859, the son of the Rev. Dewitt Clinton Byllesby. He was educated at the Western University of Pennsylvania and Lehigh University, where he studied mechanical engineering. In 1881 he first entered the employ of Thomas A. Edison with whom he was associated for a number of years in the construction of lighting plants in various parts of the United States.

In 1886 he became vice-president and general manager of the Westinghouse Electric Company, where he was very active in invention work. Later he represented this company in Europe, resigning in 1891 to become associated with the Thomas-Houston Electric Company interests. From 1895 until 1902 he was actively engaged as an engineer and organizer of water power and public utility companies in Montana, Oregon and elsewhere.

January 1, 1902, he established in Chicago the organization of H. M. Byllesby & Company. Established primarily as an engineering concern, the activities of H. M. Byllesby & Co. soon acquired a much broader scope and within a few years became prominent in financing, designing, construction, operation and management of electric light and power and gas companies. At present these companies compose one of the larger groups of utilities under a single management in the United States, serving 841 communities with 2,770,000 people in 17 states.

A member of many civic organizations and clubs, he was very active in preparedness efforts prior to our entrance in the World War, at which time he volunteered for actice service. He was sent overseas, promoted to the rank of Lieutenant-Colonel and served as the London representative of the Purchasing Bureau of the A. E. F. For his work he received distinguished service medals from the United States and British governments.

He was a member of the American Society of Mechanical Engineers, American Institute of Electrical Engineers, American Society of Civil Engineers, Western Society of Engineers, besides many clubs and civic organizations. In his death the public utility industry suffers a distinct loss, for he was a man who possessed not only executive ability of the highest order but a most comprehensive knowledge of the great utility industry.

GENERAL

CHAIRMEN OF GENERAL COMMITTEES ORGANIZED TO DATE

Accident Prevention—F. W. Fisher, Rochester, N. Y.
Amendments to Constitution—Wm. J. Clark, Mt. Vernon, N. Y.
American Engineering Standards Committee, Representative on—A. H. Hall, Cambridge, Mass. —(Alternate Representative) W. J. Serrill, Philadelphia, Pa.
Award of Beal Medal—J. B. Klumpp, Philadelphia, Pa.
Chamber of Commerce—R. B. Brown, Milwaukee, Wis.
Cooperation with Educational Institutions—W. G. Gribbel, Philadelphia, Pa.
Customer Ownership—Chas. A. Munroe, Chicago, Ill.
Education of Gas Company Employees—B. J. Mullaney, Chicago, Ill.
Finance—James Lawrence, New York, N. Y.
Gas Code—W. R. Addicks, New York, N. Y.
Gas Standards and Service—R. B. Harper, Chicago, Ill.
National Fire Protection Association—R. S. Doull, New York, N. Y.
Nominating—H. A. Norton, Boston, Mass.
Rate Fundamentals—H. M. Brundage, New York, N. Y.
Representation on National Joint Committee of Public Utility Associations—D. D. Barnum, Boston, Mass.; R. B. Brown, Milwaukee, Wis.; H. L. Doherty, New York, N. Y.; A. Forward, New York, N. Y.; C. H. Geist, Philadelphia, Pa.; J. B. Klumpp, Philadelphia, Pa.; A. P. Lathrop, New York, N. Y.; Chas. A. Munroe, Chicago, Ill.; Wm. L. Ransom, New York, N. Y.
Standard Gas Appliance Specifications—W. T. Rasch, New York, N. Y.
United States National Committee of International Commission on Illumination, Representatives on—Howard Lyon, Gloucester, N. J.; E. H. Earnshaw, Newark, N. J.; G. G. Ramsdell, New York, N. Y.

Gas Engineering Chair to be Established at Johns Hopkins University

It was announced at the close of the recent Annual Convention of the Southern Gas Association that that association had completed the financing necessary to establish a chair of Gas Engineering at Johns Hopkins University, Baltimore, Md.

This was accomplished through the generous subscriptions received from gas companies, manufacturer companies and individuals all of whom realize the great value that such an undertaking would be to the industry. To quote from the association's statement:—

"Perhaps the underwriting of the Chair might have been accomplished in shorter time; but while the association was moving along financial lines, it was trying to thoroughly 'sell' the higher ideals of the enterprise to its membership and constituency, with the result that a number of the brightest young men in its territory already are planning to enter the course at the university. The association will not rest on its oars, now that the financing is provided; it will make a continual effort to influence the right sort of students to take the work, to the end that the constituency in the gas business, in its territory, may be gradually but surely elevated in training and efficiency. This is one of its real goals."

The work of this new Chair of Gas Engineering will be inaugurated at the opening of the university this coming fall.

Short Term Franchise Costs Customers Money and Hampers Utilities

C. L. Proctor, *President of the Missouri Association of Public Utilities Explains Conditions.*

C. L. Proctor

President C. L. Proctor of the Missouri Association of Public Utilities in an address before that Association pointed out the harmful results of short term franchises and appealed to the Association for its support. This was unanimously given him. His address was brief, vigorous, and to the point. Mr. Proctor urged that the utilities should not spare any effort to secure the active, aggressive support of the people in bringing about substitution of the indeterminate permit for the limited-term franchise (20 years under Missouri law) and to relieve themselves and the utilities of special discriminatory taxation.

Proctor urged that the utilities should adopt the following policies:

1. The most economical financing possible.

2. The best possible service at the lowest possible rate.

3. Appeal to the people to approve substitution of the indeterminate permit for the limited-term (20 year) franchise usual in Missouri outside of the large cities.

4. Unremitting effort by the utilities to secure the active interest and cooperation of the people in their financing, taxation, service, other operations, and in the development of the communities, the state, and the natural resources thereof.

Proctor said that the imposition of the limited-term franchise upon the utilities made economical financing very difficult and was costing Missourians hundreds of thousands of dollars every year, because the brevity of the 20-year security forced investors to demand a rate of interest which would assure them return of all capital invested at the expiration of the franchise.

This charge, he said, was really laid upon the customers of the utility affected by the limited-term franchise.

The indeterminate permit, Proctor explained, would permit the utilities to operate indefinitely so long as service was satisfactory, or until the communities elected to take over and operate the utilities for themselves.

"Money, which, on an indeterminate permit, could be secured for 6 or 7 per cent, will, under a limited-term franchise, cost from 9 to 10 per cent, because the investor demands return of his investment upon the expiration of the franchise.

"The utilities should, in justice to themselves and to the public, spare no effort to fully inform the people upon the injury which the limited-term franchise imposes upon them and upon the public utilities, and the good that substitution therefore of the indeterminate permit, or long-term franchise, will do them and the utilities."

Concerning taxation, Proctor said,

"Many discriminatory special taxes, such as franchise taxes, paving taxes, mill taxes on street car fares, are levied against the utilities, under the impression that these taxes are paid out of net revenue of the utilities and do not affect the people. This is a mistaken idea. Many utilities have no or very limited net revenue. Taxes must be paid whether there is, or is not, any net revenue.

"So the special discriminatory and all other taxes laid upon the public utilities are paid by the customers of the utility.

"I believe that the levying of these special discriminatory taxes upon public utilities will be discontinued when the people understand that they, more than the utilities, are the sufferers therefrom.

"As the people of Missouri regulate their public utilities, the utilities can achieve the results they desire only by understanding, having the good will and aggressive support of the people.

"I conceive it to be the duty of this Association to painstakingly inform the people about the policies, and operations of their public utilities, and to solicit their energetic co-operation in having costly, discriminatory, and progress-blocking impositions removed from themselves and from the utilities."

The following resolution was passed by unanimous vote:

Whereas the public utilities of Missouri are regulated by the people and cannot effectively function as sources of indispensable services, and as natural leaders in the industrial, community and state-wide development, unless they have the fullest cooperation of the people by whom they are regulated and governed, be it resolved that,

The Missouri Association of Public Utilities in convention assembled at Kansas City, Missouri, April 9th and 10th, 1924, requests the active co-operation of all the people as indispensable to enable them to effectively discharge the duties and responsibilities which their public function imposes upon them.

It has become axiomatic that the greatness of a modern nation is largely dependent upon the excellence and widest possible diffusion of its public utility services, that the community, the state or the nation cannot grow faster or increase in wealth, convenience and civilization unless it has adequate utility service.

To the end that the people of Missouri shall understand the conditions which govern supply of adequate electric, gas, telephone, electric railways, and water supply service, we confidently bespeak their continuing active, personal interest in the financing, licensing and other operations of their public utilities.

The electric light and power, gas and water supply, telephone and electric railways of Missouri constitute, next to farming, and co-equal with steam railroads, the largest single industry in Missouri. Their services are necessary to practically every person in the state.

More important, all Missourians are served by these public utilities, so the

interest of the whole population in these public utilities cannot be less than the interest of the financially interested lesser group.

The reports of the public utilities are on file and open to public inspection, at the office of the Public Service Commission at the State Capitol. The books and records of the utilities at their home offices are open to any citizen. Any manager of any public utility in Missouri will welcome inquiry into the facts which govern the operation of the properties which he manages.

The services of the Missouri Committee on Public Utility Information, 3725 North Broadway, St. Louis, are always at the disposal of inquirers. Any inquiry made by any person about any public utility operation, if humanly possible, will be quickly and fully answered by statement of incontrovertible fact.

The public utilities of Missouri will welcome the interest of the people to whom they render essential services, and whose intelligent interest is necessary to enable them to maintain adequate service and keep up with the growth of the communities, and of the state.

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Industrial Uses for Gas

N. T. SELLMAN, Assistant Secretary-Manager, American Gas Association.

AS A FUEL GAS has no competitor. Its qualities, compared to those of coal or oil, make it the ideal fuel. Gas is most convenient, clean, flexible, controllable, obtainable, etc. When correctly applied it can accomplish every heat requirement that other commercial fuels are called upon to fulfill. If this is all true, it is logical to ask, "Why, then, is it not more generally used for industrial purposes?" At first thought it might appear that the rates are too high to compete with coal or oil. In a few larger cities, and most small gas situations, the present rates do practically exclude the wide extension of gas for industrial uses. There are, however, many situations where the rates are favorable enough but where other obstacles exist. These are the obstacles, which in most cases are surmountable, that I will discuss.

Sometimes our own lack of imagination prevents us from realizing what lies within our possibilities. We reason—"I have never seen it done, I have never heard that anyone else has done it. I guess it can't be done." The true reasoning should be—"If it requires heat it can be done better with gas than any other fuel." First convince yourself of this, then seek the best way of handling each problem as it arises. A few successful installations, which were originally hard to visualize, will soon give you confidence in gas as the ideal fuel.

The "Stock" Prospect

We have more and better appliances to choose from today than ever before. A great many of the smaller prospects can be adequately provided for with stock appliances. This is simply a case of being fully acquainted with the merits or faults of the various appliances and selecting those which best suit the local conditions. A gas company that has a man who specializes on this work is better equipped to secure this miscellaneous business than the company which must call in the appliance manufacturer's rep-

resentative for help. The gas company man when properly equipped with general appliance information, can choose more freely and therefore select the most suitable appliance that will best meet each prospect.

On many of the stock appliances the question of proper maintenance is important. Steam boilers, hotel and restaurant equipment, bake ovens, etc., should be regularly inspected, particularly if they are used in places where they serve the public or where labor is dependent upon their continued operation as a source of income.

The "Special" Prospects

Gas companies that have advanced so far in the development of gas for industry that they consider the stock appliance prospects as mere routine, often have problems of such magnitude that a single appliance will yield a monthly consumption measured in millions of cubic feet. The salesmanship and engineering ability required for this special class of business demands a type of gas man that cannot be developed in the average gas situation. The time required to study the prospect, to collect data, draw plans, sell the idea, etc., cannot be spared in most instances by the salesman, as he is too often dependent for his living upon commissions from immediate sales. The lack of variety in industry in a small city also makes it more difficult to gain the necessary experience required for handling unusual combustion and engineering problems. A man handicapped in this way is obliged to seek help and I therefore propose to discuss very frankly the best way for him to proceed.

Let us assume that Mr. Gasman has never heard or read about the application of gas to a certain heating process. All he knows is that a local factory is using oil for a large heating operation. This man most certainly needs help or else, if he has ideas to let loose, he may venture into needless experimentation and expense. A prospect will only allow him to "fall down" once, and it may take years to regain the confidence of the concern no matter how good Mr. Gasman's subsequent suggestions may be. It is therefore more advisable that he proceed slowly, gather all the information possible regarding costs and methods of operation under the existing fuel. If this data is then forwarded to A. G. A. Headquarters we will either advise directly from information on file or else seek advice from industrial engineers known to be actively engaged in the work of similar character. Efforts will always be made to supply both information sufficient to make an estimate of approximate operating costs and descriptive matter as to all the necessary pieces of apparatus. From this point on the manufacturer of appliances can estimate.

The information which is now available, such as the preliminary data collected by the local gas man and added to by the A. G. A., will make it easy for a manufacturer to estimate appliance costs and possibly to supply a more accurate operating cost. If bids are sought from several manufacturers there will, of course, be a considerable variation in price and I therefore wish to emphasize at this time that greater consideration should be given to construction, efficiency, control, convenience, etc., than to price.

Probably the worst criticism that can be made against the present industrial situation, in general, is that we are not selling gas appliances of a quality comparable to the appliances made for competing fuels. Frequently an electric oven selling for $1,200 will be bought in preference to a gas oven selling for $200 even though the operating cost of the electric oven will be twice that of the gas. The

electric man capitalizes the quality of his product, the convenience, the cleanliness, the safety and the control. The gas man can claim all these qualities equally as well and in many instances he would stop a sale of this kind if he sold a first-class, well insulated, substantially constructed oven. The price of this well constructed gas oven may have to be $500 but I firmly believe that the well built $500 oven is a better appliance for general sale than the more cheaply constructed $200 appliance.

I have previously emphasized the fact that gas is the ideal fuel and it should be our purpose in all industrial sales work to give the customer the full benefit of this fact. This means that the gas installation should be just as automatic as modern control devices will allow. Use the most convenient and safe method for ignition; use thermostatic control wherever it will be of the slightest value; do not sell the appliance and talk control afterwards but sell the two of them simultaneously as a unit which cannot properly be separated.

The Collection of Data

In the industrial gas field the collecting of accurate cost data seldom receives the attention that it should. It is rare to find articles on the use of gas in industry, where the author gives sufficient data that would enable an estimate to be made on a similar process. If we want to show the maximum advantage of gas over other fuels, it is quite necessary that we analyze the fuel cost on the unit of production basis. By doing this we can often show gas as the cheaper process even though its daily fuel bill may be greater. A very excellent example of cost analyzing which fully illustrates this point, appears in a recent issue of the *Peoples Gas Club News*. It involves the carbonization of steel shafts approximately 1" in diameter and 12" in length.

Fuel (per day)

Oil	*Gas*
$1.38	$2.36

Labor

Packing, loading, unloading, luting and quenching.

Oil	*Gas*
$1.51	$0.44

Carbonizing Material

Under former practice when oil was used, 45 lbs. of new material and 45 lbs. of old material at a total cost of $3.72. This is greatly reduced when gas is used. Only 4½ lbs. of old material being used and 4½lbs. of new at a total cost of 38¢.

Oil	*Gas*
$3.72	$0.38

Cost of Clay

Clay for twelve boxes

Oil	*Gas*
$0.03	$0.00

Deterioration of Boxes

Boxes last from 20 to 25 heats. No boxes required when gas is used.

Oil	*Gas*
$2.88	$0.00

Total Cost

Oil	*Gas*
$9.52	$3.18

Number of Shafts Carbonized

Oil	*Gas*
144	200

Total Cost per 100 Shafts

Oil	*Gas*
$6.61	$1.59

This analysis has shown that an apparent increased fuel cost for gas of 71% is in reality a saving of 316% in favor of gas on the unit of production basis. A similar careful analysis on the subject of sheet steel enameling changed an apparent saving for coal over gas of 122% to a saving favoring gas of 340%. Cost data such as this will interest any manufacturer. It pictures the true story and reaches the facts which affect cost of production.

A Standard Data Sheet

Since it is expensive to collect data, we should use the A. G. A. Headquarters

as a clearing house for information of this character, thus making the widest use of that which is collected. At the last meeting of the Industrial Gas Section Managing Committee it was suggested that a standard data sheet be printed for the purpose of analyzing all industrial gas prospects. This is of equal importance to collecting data on finished installations. Most requests for information that we receive at A. G. A. Headquarters are not in sufficient detail to allow a very direct recommendation. If help is sought from the industrial appliance manufacturer or other gas companies the necessity for complete information is equally important. There will be decided advantages to this proposed standard form, in that it will be complete, uniform and will eliminate undue correspondence, or return visits to the prospect for neglected details.

New Fields Opened Up

Confidence in our product, as to its value and what it will accomplish, is the most necessary requirement for a successful industrial salesman. I will mention a few outstanding instances of new applications which show conclusively that some gas men must of necessity have had this confidence in order to accomplish what they did. In practically every instance that I will mention, the installations were secured on gas rates exceeding $.60 per thousand.

One large gas company went through the experimental stages of firing ordinary building brick and have proved their case so well that they are selling one customer about $10,000 worth of equipment and have secured a contract from this concern guaranteeing that they will use gas as fuel at the current rates for five years. This accomplishment places practically all clay product firing in our list of possible prospects. As you undoubtedly know, the methods used in the brick industry are unusally crude and it is one of the last industries where one would expect the customer to spend $10,000 for equipment. It shows beyond all question the advantages of gas when properly applied.

Quite recently there has been a distinct forward movement in the adoption of manufactured gas for the different heating operations in the manufacture of glassware. During the operation of glass blowing the glass in the process of formation requires a re-heating to maintain it in a plastic condition. For this purpose gas furnaces, called by the trade "gloryholes," are used. As soon as the glassblower has finished his work on the article it is immediately transferred while hot to a low temperature furnace to allow gradual cooling. In some of the modern glass works the furnace used for enameling is gas fired. These furnaces are usually from 40 to 70 feet long and about ¼ of the length is heated to a scarcely visible red heat. The hot gases from this portion of the furnace travel through the remaining length and thus give a graduated heat. Furnaces of this description yield annual consumptions exceeding two million cubic feet.

There are several vitreous enameling plants using gas where monthly consumptions are well in excess of 2,000,000 cubic feet. Applications of similar size have been made in bakeries, galvanizing plants, various metal product industries, automobile plants, etc.

Ten years ago the annual consumption of manufactured gas for industrial purposes was about 8 billion cubic feet. Today, the total is approximately 90 billion cubic feet. This is only a start in what is clearly our rightful field of activity.

The McCarter Medal

The Medal.

THROUGH THE generous action of Mr. T. N. McCarter, President of the Public Service Gas Company, Newark, N. J., the American Gas Association will hereafter award a medal, to be known as the "McCarter Medal." This medal will be awarded to each employee of a member company who was successful in resuscitating a fellow employee of a member company from gas asphyxiation. In addition a certificate will be given to the men who assist in each resuscitation.

The Executive Board of the Association in accepting Mr. McCarter's offer, expressed the thanks of the Association in a telegram signed by the Secretary-Manager, which read:

"By resolution of Executive Board of American Gas Association in session today I was instructed to advise you by wire that your offer to donate medal for resuscitation from gas asphyxiation was received and accepted with thanks and deep appreciation of your action."

The details of method of awarding this medal, which will be retroactive covering the year 1923, are briefly as follows:—

An application for the award of a medal may be made by an executive official of a company to the Accident Prevention Committee of the American Gas Association. An affidavit, setting forth the complete details of the resuscitation accompanies the application. If the Accident Prevention Committee deems the circumstances justify the award, the case is reported to the Executive Board of the Association, with a suggestion of the time and place for the award. The Accident Prevention committee, on receiving the approval of the Executive Board, then arranges for Mr. McCarter, or his appointee, to make the presentation.

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"The gas range has done to the kitchen coal stove what the auto has done to the horse."

—Printers' Ink

A. G. A. Delegates Approve Rail Consolidation

VOLUNTARY CONSOLIDATION of railroads, commission form of rate reglation, and the establishment of an auxiliary motor transport service in connection with rail carriers, were among the most important recommendations favored by the delegates of the American Gas Association in the submission of their votes on Referendum No. 43 on the Report of the Special Committee on Transportation of the U. S. Chamber of Commerce.

The delegates approved the policy of connecting and coordinating terminal facilities with provisions for joint use prescribed by the Interstate Commerce Commission and were opposed to any attempt to deal with rates and other problems of regulation of common carriers through legislation. They supported the recommendations of the Committee on Transportation to proceed with a readjustment of relative freight rates after proper study and investigation instead of attempting any general reduction at the present time.

In connection with the utilization of motor transport to replace uneconomical forms of rail service, extend present services and relieve congestion, the delegates approved the suggestion that motor transport be subject to the same regulation which now has jurisdiction over other common carriers. They also voted that road users should pay the entire cost of maintenance of highways through special taxes levied against them. This is to be in addition to bearing an equitable share of the general tax burden.

The delegates opposed giving authority to the Secretary of War to continue operation of barge lines on the Mississippi and Warrior Rivers, and registered a negative vote on the recapture clause in connection with railroad rate regulation. They voted favorably in the proposition that the important principles of the Transportation Act of 1920 should be continued until there has been further experience.

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Gas to be Heard at World Power Conference

FOLLOWING IS the program of the Gas and Fuel Section of the World Power Conference to be held at Wembley, England, June 30 to July 12.

"Illumination by Gas," Dr. J. S. G. Thomas and Dean Chandler; "Industrial Use of Gas," Sir Arthur Duckham; "Coke as Fuel for Steam Raising," E. W. L. Nichol; "Fuel Conservation and Smoke Abatement," F. W. Goodenough; "Science in the Gas Industry, Present, Past and Future," Prof. J. W. Cobb; "The Present Position and Future Prospects of the Gas-Making Industry," D. Milne Watson; "Future Use and Application of Gas-Engines (Coal Gas) in the Use of Power," Prof. F. W. Burstall; "The Coordination of the Use of Fuel," E. W. Smith; "The By-Products of Coal Distillation in Relation to Power Production," W. G. Adam.

Gaslit Wembley*

At the British Empire Exhibition, thirteen miles of gas mains have been laid to bring gas to the hundreds of exhibitors. At least two million cubic feet of gas per week are being used by Messrs. Lyons for catering purposes—enough to supply a town of 20,000 inhabitants. Five thousand gas burners, giving a total light of over 500,000 candle power, have been installed in the amusement park.

The British Empire Gas Exhibit, in the Palace of Industry, occupies a space of over twelve thousand square feet, the rent for which is more than £8,000. The capital employed in the British gas industry represented at the Exhibition is £160,000,000 ($752,000,000). The industry employs over 100,000 men, and last year used 16 million tons of coal and 46 million gallons of oil in making 270,000 million cubic feet of gas.

A noteworthy feature is the collection of gas heaters, ten million of which are now in use in England, and gas cookers, of which there are five million installed. There are fifty-four restaurants on the grounds using gas exclusively for cooking and water heating. The total consumption of gas throughout the Exhibition is estimated at about three-quarters of a million cubic feet per day. The gas is supplied by the Brentford Gas Company, which, in addition to lighting the whole of the amusement park, has also secured a portion of the Exhibition ground lighting.

*From the Gas World, April 19, 1924.

Why the Exaggeration?

We constantly hear the objection about this, that, or the other appliance, "Too costly to operate." Users rarely know what they are taking about when they make that objection. Hundreds of investigations of gas bills develop the fact that the statement—the average reference to the size of the gas bill can be discounted fifty per cent and even then found to be beyond the facts,—is not an unfair one to make.

Take one recent case. A man building a new house figured on using other fuels than gas. When the question was asked as to why he figured on the other fuels the reply was that his gas bills had been eighteen to thirty-five dollars per month. Investigation showed that the highest gas bill he had had any time during the twelve previous months was $8.58 and that his average gas bill for those twelve months amounted to only $5.43.

This is only a sample of what is commonly encountered. This gives rise to the suggestion that each case of such exaggeration should be run down, and the idea corrected. Letting people get away with such exaggerations causes others to be more or less influenced by what they think are facts but which are nothing but the most miserable sort of careless guess-work.

ACCOUNTING SECTION

W. A. SAUER, Chairman — H. C. DAVIDSON, Vice-Chairman

H. W. HARTMAN, Secretary

MANAGING COMMITTEE—1924

ARMSTRONG, J. J., Toronto, Can. (Canadian)
BARTON, W. H., Portland, Ore.
BISSELL, J. H., Boston, Mass.
BLANCHFIELD, J. J., Brooklyn, N. Y.
CARROLL, H. P., Beaumont, Texas. (Southwestern)
CLINTON, DEWITT, Worcester, Mass. (N. E. Gas Eng.)
DOERING, W. A., Boston, Mass.
FREY, H. F., Allentown, Pa.
HAASE, EWALD, Milwaukee, Wis. (Wisconsin)
HALL, I. S., Boston, Mass.
HEINS, J. W., Philadelphia, Pa.
HOFFMAN, F. C., St. Paul, Minn.
JAMES, F. M., Aurora, Ill. (Illinois)
JAMES, W. H., Petersburg, Va. (Southern)
KELLER, A. R., Syracuse, N. Y.
KURTZ, ADAM, Detroit, Mich. (Michigan)
LAWALL, H. J., Philadelphia, Pa.
LAWRENCE, JAMES, New York, N. Y.
MEYERS, W. J., New York, N. Y.
MURFIT, W. G., Newton, Pa.
PAGE, HOMER, Charleston, S. C.
PATTERSON, F. H., Rochester, N. Y.
PETTES, W. H., Newark, N. J. (New Jersey)
PLATT, C. W., Portland, Ore. (Pacific Coast)
PORTER, EDWARD, Philadelphia, Pa. (Pennsylvania)
POTTER, C. F., Newark, N. J.
REESE, J. G., Baltimore, Md.
REYNOLDS, A. E., Springfield, Mo. (Missouri)
SCHMIDT, WM., JR., Baltimore, Md.
SCOBELL, E. C., Rochester, N. Y. (Empire State G. & E.)
SCOTT, J. M., Wilmington, Del.
SEARING, R. B., Sioux City, Ia. (Iowa)
SEARLE, A. A., New York, N. Y.
SHORT, A. F., Providence, R. I.
TOSSELL, A. L., Chicago, Ill.
TRACY, F. B., Muncie, Ind. (Indiana)
WILBUR, A. A., Brockton, Mass. (Gas Sales of N. E.)
WINTERS, A. C., Chicago, Ill.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

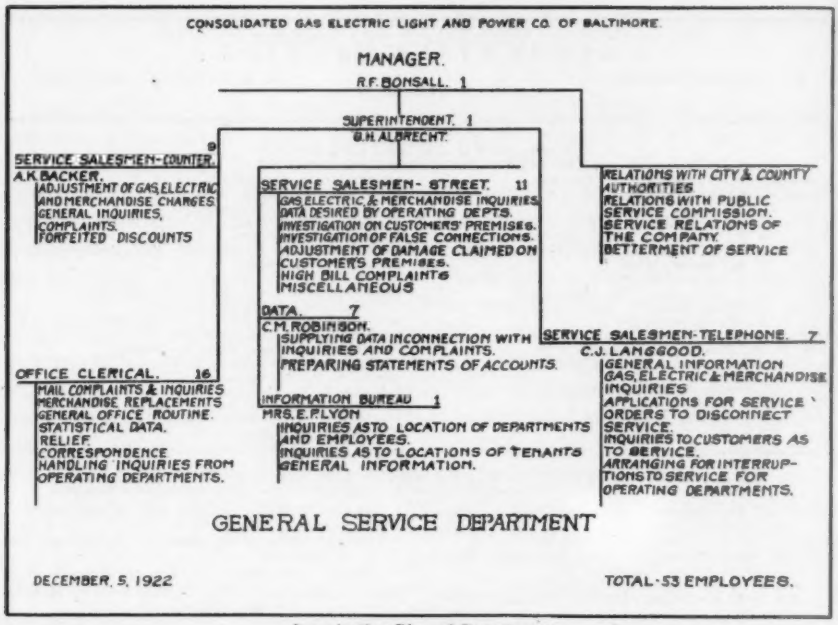
Analysis of Gas Company Statistics—H. J. LAWALL, Philadelphia, Pa.
Budget—F. H. PATTERSON, Rochester, N. Y.
Customers Accounting—H. J. FREY, Allentown, Pa.
Insurance—J. G. REESE, Baltimore, Md.
Nominating—J. W. HEINS, Philadelphia, Pa.
Relations With Customers—DEWITT CLINTON, Worcester, Mass.
Improving Relations Through Employees Visiting Customers' Premises—W. H. BARTON, Portland, Ore.
Errors, Their Correction and Prevention—J. M. ROBERTS, Chicago, Ill.
Security Holders' Records— E. MACMORRIS, Philadelphia, Pa.
Welfare Systems—O. F. POTTER, Newark, N. J.
State Representatives and Contributions to Monthly—A. L. TOSSELL, Chicago, Ill.
Uniform Classification of Accounts and Form of Annual Report to Public Service Commissions—W. J. MEYERS, New York, N. Y.

General Service Department of the Baltimore Consolidated Gas, Electric Light & Power Co.

R. F. BONSALL

Extracts from paper "Handling Complaints" read before the meeting of the Public Utilities of Maryland, held under the auspices of the Public Service Commission of Maryland, February 20, 1923.

THE GENERAL SERVICE DEPARTMENT receives all complaints of every description—by person, mail or telephone. Trouble calls affecting the supply of service, made by telephone are placed directly on the boards of the respective operating departments. These telephone boards are, however, under our general supervision and are monitored from time to time. In addition to these telephone boards, we have a General Service Telephone Board, over which the customer may make application for, or request termination of service; complain or make inquiry, and receive the same attention as if he were standing at the counter,—that is, his case is investigated and complaint settled or inquiry answered, wherever possible, while he is holding the line, except in the case of a high bill, which requires reference to the handbooks, etc., and which is taken care of



Organization Plan of Department

later, by one of our Outside Service Salesmen. This board is divided into two units, with a total capacity of ten positions, equipped with twenty-nine trunk lines and four private lines, connected to those departments with whom we have the greatest number of transactions. There is also a monitor board located in my office, permitting us to supervise the service given by each telephone salesman. In addition to the calls mentioned above, all those of a miscellaneous nature are also placed on this telephone board whenever the customer is not definite as to just what he wants.

Complaints Vary

These complaints vary from high bills, delays in supplying service, employee's attitude or action involving discourtesy on customers' premises, removal of poles or wires, enlargement of mains and service, disputed charges, connection found ahead of meters, minor claims for damages, service and equipment troubles, arranging outages for Electric Operating Department, grounds on customers' premises. In fact our classification shows approximately forty different forms of complaints or inquiries affecting every activity of that part of the company directly engaged in serving the public.

In attempting to deal with the so-called "high bill" complaint, we have adopted the plan of sending to the customer's premises our most highly trained men; only those who have served their time in the office and in meeting the public at the counter, being selected for this work.

It is somewhat of a departure from the usual plan of sending a shop employee to read the meter and test it, but the results show that although it is more expensive through the higher trained employee used, it is much more profitable through the satisfaction created by their visit.

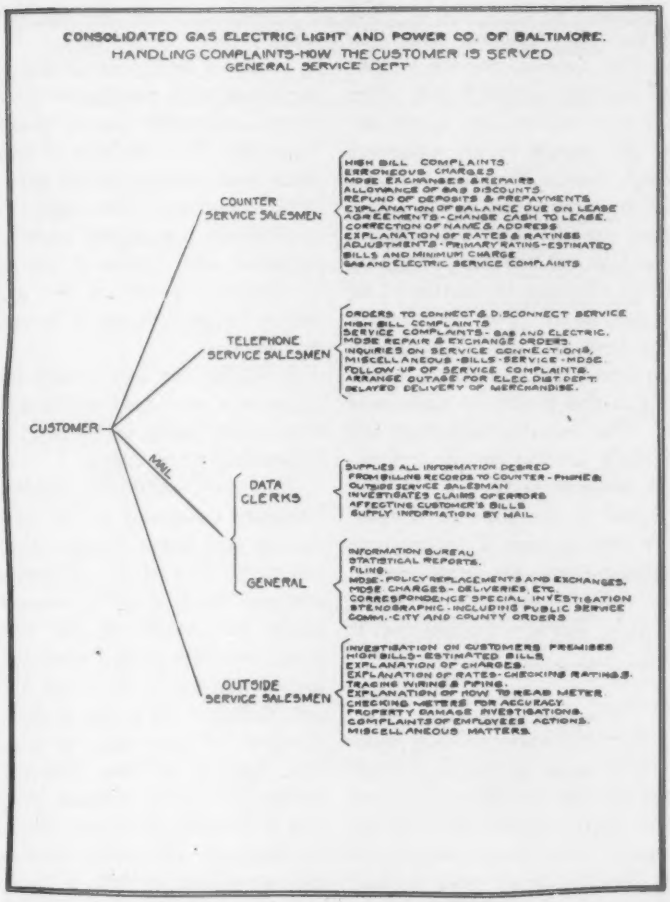

CONSOLIDATED GAS ELECTRIC LIGHT AND POWER CO. OF BALTIMORE.
HANDLING COMPLAINTS-HOW THE CUSTOMER IS SERVED
GENERAL SERVICE DEPT
CUSTOMER
COUNTER SERVICE SALESMEN
HIGH BILL COMPLAINTS
ERRONEOUS CHARGES
MDSE EXCHANGES & REPAIRS
ALLOWANCE OF GAS DISCOUNTS
REFUND OF DEPOSITS & PREPAYMENTS
EXPLANATION OF BALANCE DUE ON LEASE AGREEMENTS - CHANGE CASH TO LEASE.
CORRECTION OF NAME & ADDRESS
EXPLANATION OF RATES & RATINGS
ADJUSTMENTS - PRIMARY RATING - ESTIMATED BILLS AND MINIMUM CHARGE
GAS AND ELECTRIC SERVICE COMPLAINTS
TELEPHONE SERVICE SALESMEN
ORDERS TO CONNECT & DISCONNECT SERVICE
HIGH BILL COMPLAINTS
SERVICE COMPLAINTS - GAS AND ELECTRIC.
MDSE REPAIR & EXCHANGE ORDERS.
INQUIRIES ON SERVICE CONNECTIONS,
MISCELLANEOUS - BILLS - SERVICE - MDSE.
FOLLOW UP OF SERVICE COMPLAINTS.
ARRANGE OUTAGE FOR ELEC DIST DEPT.
DELAYED DELIVERY OF MERCHANDISE.
MAIL
DATA CLERKS
SUPPLIES ALL INFORMATION DESIRED FROM BILLING RECORDS TO COUNTER - PHONES OUTSIDE SERVICE SALESMAN
INVESTIGATES CLAIMS OF ERRORS AFFECTING CUSTOMER'S BILLS
SUPPLY INFORMATION BY MAIL
GENERAL
INFORMATION BUREAU
STATISTICAL REPORTS.
FILING.
MDSE - POLICY REPLACEMENTS AND EXCHANGES.
MDSE CHARGES - DELIVERIES, ETC.
CORRESPONDENCE SPECIAL INVESTIGATION
STENOGRAPHIC - INCLUDING PUBLIC SERVICE COMM. - CITY AND COUNTY ORDERS
OUTSIDE SERVICE SALESMEN
INVESTIGATION ON CUSTOMERS PREMISES
HIGH BILLS - ESTIMATED BILLS
EXPLANATION OF CHARGES.
EXPLANATION OF RATES - CHECKING RATINGS.
TRACING WIRING & PIPING.
EXPLANATION OF HOW TO READ METER
CHECKING METERS FOR ACCURACY
PROPERTY DAMAGE INVESTIGATIONS.
COMPLAINTS OF EMPLOYEES ACTIONS.
MISCELLANEOUS MATTERS.

Chart showing how customer is served

Their investigation considers not only the use of the service which frequently is found to be through causes not known, such as heaters in use in apartments rented to tenants, crossed piping or wiring, due to carelessness in the installation, meters reversed by careless workmen; but it also includes an effort to show the customer how to economize in the use of the service. Gas complaint meters or electric printometers are often set for a period of one week to show when the consumption occurs, our effort being always in the direction of satisfying the customer that he used the service, or ascertain the error, rather than to justify the bill by verifying the meter reading.

Adjustments

Adjustments have been made when the consumption of gas is found to be due to abnormal causes not known to the customer. Usually a waste due to a leak of gas is stopped promptly, because of the odor advertising its presence. I have

in mind, however, a recent case in which we found that the customer when she started her coal furnace for the winter, and which supplies her with hot water from a coil in it, turned off, as she believed, the gas supply to an automatic water heater. She did, but only the pilot cock, as the main burner cock was found on full when our inspector called to investigate the high bill, the gas passing up and out of the chimney at the rate of 60 cubic feet per hour. The temperature of the water from the coil did not reach the point at which the thermostat would cut off the gas, and hence the waste was continuous. The customer admitted her error in turning off the supply and expressed her willingness to pay the bill. When informed of our decision to make her an allowance because of the circumstances, she exhibited the usual appreciation that follows these adjustments. Did it pay to be liberal? We feel that it did.

Quicker Service

In an effort to minimize the time necessary to complete a customer's application for service, we have for years kept gas and electric meters on premises that are vacant. The electric meters are not cut out, but are merely read to close an account.

The gas meter is turned off only because of the danger of gas escaping from a cock being accidentally turned on. A seal is placed on stop cock at the meter with a tag attached, giving instructions how to have the gas turned on by calling the company.

The elimination of many complaints is the outcome of such measures as the new tenant finds the electric meter on when he moves in, and frequently turns on the gas meter himself, being warned in such cases, when known in advance, that he must accept the full responsibility for making certain that no leaks of gas exist.

To avoid delays in serving customers, we accept their application over the telephone, and when urgent, complete it the same day. Our analysis of time to complete such orders shows approximately 90% completed in two days. Confirming applications are signed when our representative, who reports to the Application Department, turns on the gas, or are mailed to the customer if he is not on the premises.

It will be seen that by such means complaints are prevented which would otherwise occur, and it is distinctly a phase of "Handling Complaints."

A liberal policy also applies when a customer complains of his first bill, believing that some energy was used between the time of the old tenant moving out and the date of his occupancy. Actually we charge off any consumption found on these meters when the premises are vacant, and as the meter is read when our inspector calls, the customer is not charged for any such so consumption. It so happens at times, however, that the tenant moves in without notifying us, and if he does not accept the amount of consumption shown as representing his use, we adjust the bill.

It is good business to apply those principles of general merchandising, which make one store more popular than another, to our business, and adjustments should be made of all matters on a fair and impartial basis, always giving the customer the benefit of the doubt.

Training Organization

The training of an organization such as our General Service Department is an important phase of the subject "Handling Complaints" for without adequate training the representatives of such a department will fail to express or carry

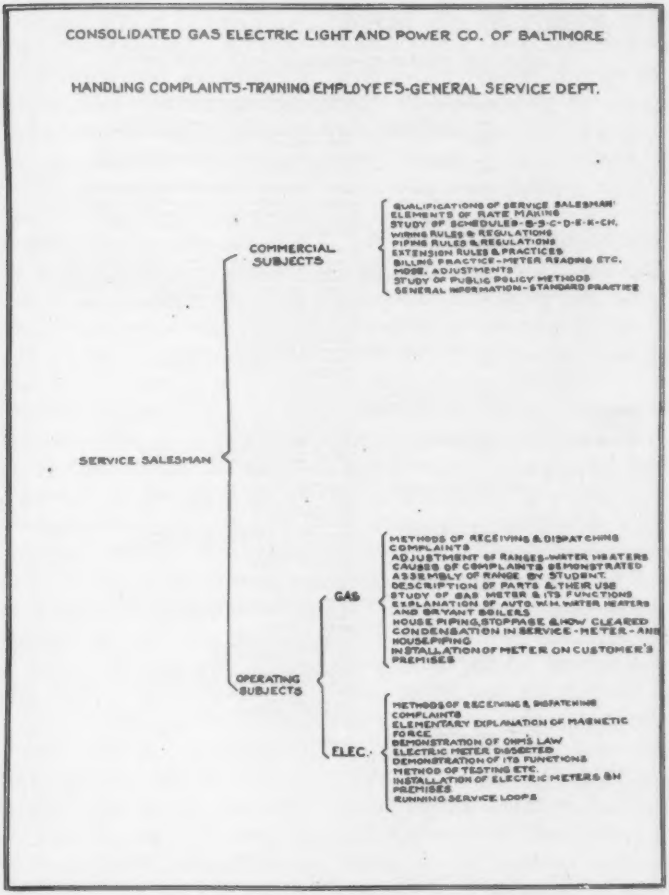

CONSOLIDATED GAS ELECTRIC LIGHT AND POWER CO. OF BALTIMORE
HANDLING COMPLAINTS-TRAINING EMPLOYEES-GENERAL SERVICE DEPT.
SERVICE SALESMAN
COMMERCIAL SUBJECTS
QUALIFICATIONS OF SERVICE SALESMAN
ELEMENTS OF RATE MAKING
STUDY OF SCHEDULES-B-S-C-D-E-K-CH.
WIRING RULES & REGULATIONS
PIPING RULES & REGULATIONS
EXTENSION RULES & PRACTICES
BILLING PRACTICE-METER READING ETC.
MODE, ADJUSTMENTS
STUDY OF PUBLIC POLICY METHODS
GENERAL INFORMATION-STANDARD PRACTICE
OPERATING SUBJECTS
GAS
METHODS OF RECEIVING & DISPATCHING COMPLAINTS
ADJUSTMENT OF RANGES-WATER HEATERS
CAUSES OF COMPLAINTS DEMONSTRATED
ASSEMBLY OF RANGE BY STUDENT
DESCRIPTION OF PARTS & THEIR USE
STUDY OF GAS METER & ITS FUNCTIONS
EXPLANATION OF AUTO. W.H. WATER HEATERS AND BRYANT BOILERS
HOUSE PIPING, STOPPAGE & HOW CLEARED
CONDENSATION IN SERVICE-METER-AND HOUSE PIPING
INSTALLATION OF METER ON CUSTOMER'S PREMISES
ELEC.
METHODS OF RECEIVING & DISPATCHING COMPLAINTS
ELEMENTARY EXPLANATION OF MAGNETIC FORCE
DEMONSTRATION OF OHM'S LAW
ELECTRIC METER DISSECTED
DEMONSTRATION OF ITS FUNCTIONS
METHOD OF TESTING ETC.
INSTALLATION OF ELECTRIC METERS ON PREMISES
RUNNING SERVICE LOOPS

Chart showing training given department employees

out the policies of a utility, no matter how broadminded its officials may be.

A paramount feature of such training is to develop the view that the department actually is the customer's representative, and because of its knowledge of the company's methods is in a position to serve as the customer's attorney. Thus it is in a unique position in that it can impartially, and in an unbiased way take in hand all complaints and inquiries brought to our attention, and represent the customer in the subsequent negotiations with various departments or even with the management.

It has also another unique position in that it is the spokesman of the management in all of its relations with the public.

The extent of such intercourse with other departments is best illustrated by a chart, showing the ramifications of such an organization. The value to the customer of being able to transact his business in one department is easily seen. The training of the service salesman

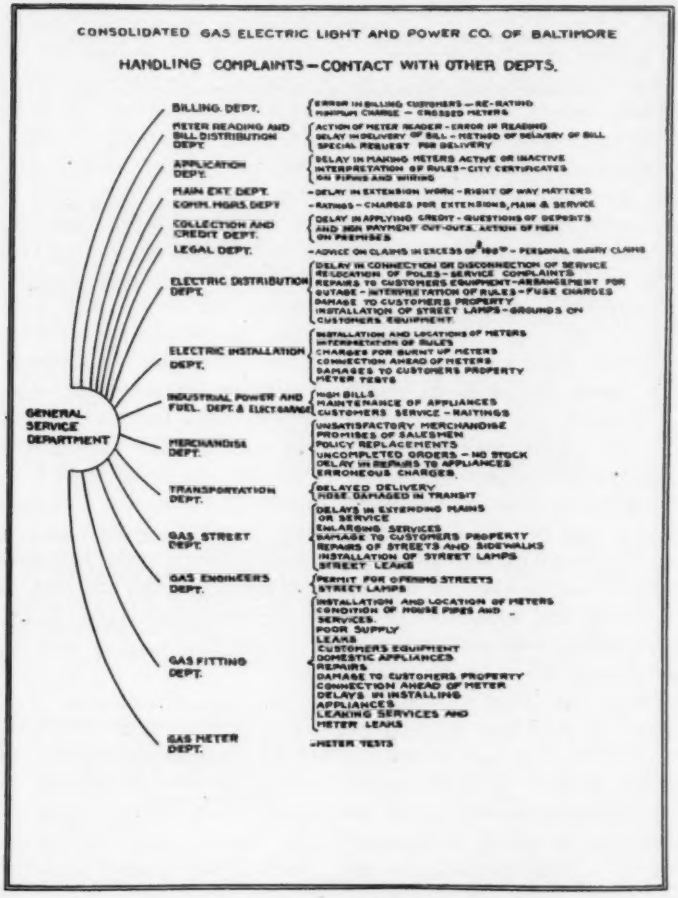

CONSOLIDATED GAS ELECTRIC LIGHT AND POWER CO. OF BALTIMORE
HANDLING COMPLAINTS—CONTACT WITH OTHER DEPTS.
GENERAL SERVICE DEPARTMENT
BILLING DEPT.
ERROR IN BILLING CUSTOMERS — RE-RATING
MINIMUM CHARGE — CROSSED METERS
METER READING AND BILL DISTRIBUTION DEPT.
ACTION OF METER READER - ERROR IN READING
DELAY IN DELIVERY OF BILL - METHOD OF DELIVERY OF BILL
SPECIAL REQUEST FOR DELIVERY
APPLICATION DEPT.
DELAY IN MAKING METERS ACTIVE OR INACTIVE
INTERPRETATION OF RULES - CITY CERTIFICATES
ON PIPING AND WIRING
MAIN EXT. DEPT.
- DELAY IN EXTENSION WORK - RIGHT OF WAY MATTERS
COMM. MGRS. DEPT
- RATINGS - CHARGES FOR EXTENSIONS, MAIN & SERVICE
COLLECTION AND CREDIT DEPT.
DELAY IN APPLYING CREDIT - QUESTIONS OF DEPOSITS
AND NON PAYMENT CUT-OUTS. ACTION OF MEN
ON PREMISES
LEGAL DEPT.
- ADVICE ON CLAIMS IN EXCESS OF $100.00 - PERSONAL INJURY CLAIMS
ELECTRIC DISTRIBUTION DEPT.
DELAY IN CONNECTION OR DISCONNECTION OF SERVICE
RELOCATION OF POLES - SERVICE COMPLAINTS
REPAIRS TO CUSTOMERS EQUIPMENT - ARRANGEMENT FOR
OUTAGE - INTERPRETATION OF RULES - FUSE CHARGES
DAMAGE TO CUSTOMERS PROPERTY
INSTALLATION OF STREET LAMPS - GROUNDS ON
CUSTOMERS EQUIPMENT
ELECTRIC INSTALLATION DEPT.
INSTALLATION AND LOCATIONS OF METERS
INTERPRETATION OF RULES
CHARGES FOR BURNT UP METERS
CONNECTION AHEAD OF METERS
DAMAGES TO CUSTOMERS PROPERTY
METER TESTS
INDUSTRIAL POWER AND FUEL. DEPT. & ELECTRAMAN
HIGH BILLS
MAINTENANCE OF APPLIANCES
CUSTOMERS SERVICE - RATINGS
MERCHANDISE DEPT.
UNSATISFACTORY MERCHANDISE
PROMISES OF SALESMEN
POLICY REPLACEMENTS
UNCOMPLETED ORDERS - NO STOCK
DELAY IN REPAIRS TO APPLIANCES
ERRONEOUS CHARGES
TRANSPORTATION DEPT.
DELAYED DELIVERY
NOISE DAMAGED IN TRANSIT
GAS STREET DEPT.
DELAYS IN EXTENDING MAINS OR SERVICE
ENLARGING SERVICES
DAMAGE TO CUSTOMERS PROPERTY
REPAIRS OF STREETS AND SIDEWALKS
INSTALLATION OF STREET LAMPS
STREET LEAKS
GAS ENGINEER'S DEPT.
PERMIT FOR OPENING STREETS
STREET LAMPS
GAS FITTING DEPT.
INSTALLATION AND LOCATION OF METERS
CONDITION OF HOUSE PIPES AND SERVICES
POOR SUPPLY
LEAKS
CUSTOMERS EQUIPMENT
DOMESTIC APPLIANCES
REPAIRS
DAMAGE TO CUSTOMERS PROPERTY
CONNECTION AHEAD OF METER
DELAYS IN INSTALLING APPLIANCES
LEAKING SERVICES AND METER LEAKS
GAS METER DEPT.
- METER TESTS

Chart showing contact with other departments

must be extensive and comprehensive, as he should be one of the best informed employees on the general practice and scope of the company. It comprises not only a course in salesmanship, involving a study of approach, tact, human nature, development of confidence, etc., but also elements of rate making, rate schedules, wiring and piping rules, billing practices, study of public policy methods and general information.

The course of training should also include some time spent in the Operating Department to learn the methods of installing services and meters, adjustment of various appliances, clearing of troubles in house piping, etc., meter testing methods, including visits to customers' premises with the workmen, as well as the office service salesman going on jobs with the outside service salesman, to learn the steps necessary to close the complaint on the customer's premises. The development of a flexible force of men readily assignable from one class of work to another, is essential to meet the peaks

that occur in various branches of the work.

Another important phase of the training is the development of the telephone service salesmen who must be especially fitted for their task, because of the disadvantage of not meeting the customer face to face, the character of the voice, its resonance, the ability to convey over the wire the desire to serve the customer, are all steps to be carefully watched if the service is to be complete. It is evident therefore, that back of the training there must be a type of personality that will react favorably when it meets the customer's various moods.

To maintain the interest of these men to a high degree, both weekly and monthly meetings are held to discuss problems, the weekly meetings being attended by a representative from each group, alternating each week. At the monthly meetings discussions are frequently staged in which actual complaints are handled, the customer's part being taken by some of the salesmen, the audience judging the effectiveness of the explanation of the company's representative. Constructive criticism and suggestions have done much to improve our policies and methods. Honesty of purpose and frankness in dealing with the customer is emphasized.

Cooperation at Other Departments

A very essential part of "Handling Complaints" is to have the active cooperation of all other departments. Their acceptance of the same ideals which govern our methods is a big factor in giving better service. Our Gas Fitting Department, which investigates all matters affecting the gas supply, adjustment of appliances, etc., is an example of this spirit, cited especially because of the number of contacts yearly with our customers, in their homes. Improved methods to provide better service more quickly, notably that of the system of compressed air for clearing stoppages in house piping, have been worked out by them. The removal of traps or other defects in house piping by these men at a nominal cost, thus striking at the root of such causes of poor supply, stoppages, etc., is another evidence of their interest in the customer.

In the Electric Distribution and Installation Departments, we find it also—numerous calls being received from these departments concerning the extent of some service to the customer that is felt to be desirable.

The Xmas rush of applications for meters finds these men prepared to handle every job received up to Xmas Eve, although at times the service is cut in temporarily, calling for a second visit aferwards. In our meter reading, billing and collection practice we have found the same spirit of cooperation, changes in practice often resulting from some view advanced by our customers. The most recent was the revision of our bill form because a customer found difficulty in understanding it. After considerable effort on the part of our Billing Department, several improvements were made, and a sample of the proposed bill was shown to the customer and his opinion sought. It is indicative of our desire to improve public relations, and illustrates that we are but a means to an end.

The results we seek to achieve are after all, the closer welding of the public and our many departments which make up the company, into a *harmonious* whole, and I feel that public utterance should be given to the service rendered by our allied departments in making this possible.

General Betterment of Service

A word should be said regarding the betterment of service, which is independ-

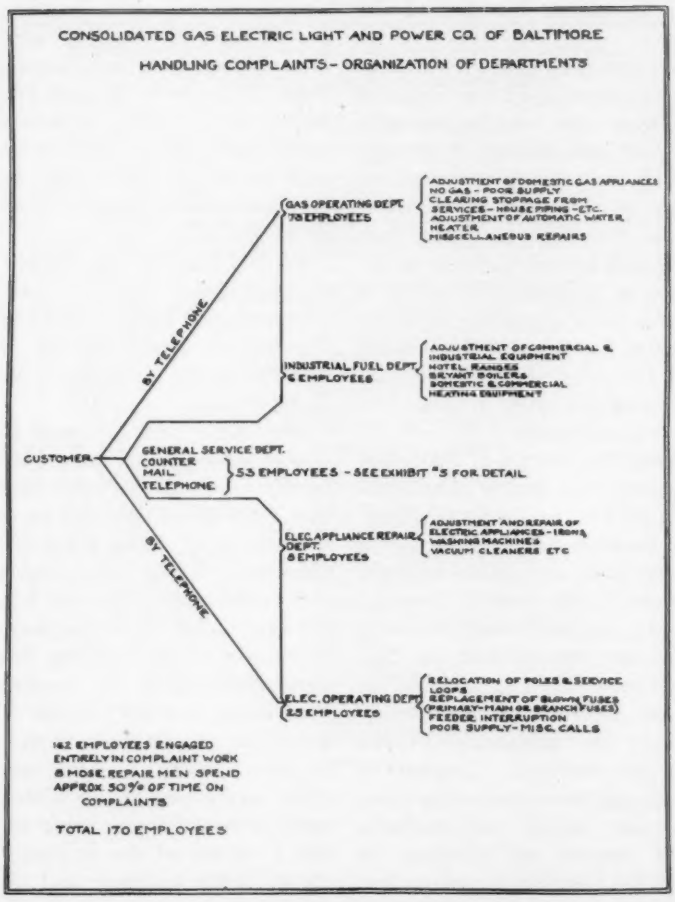

CONSOLIDATED GAS ELECTRIC LIGHT AND POWER CO. OF BALTIMORE
HANDLING COMPLAINTS - ORGANIZATION OF DEPARTMENTS
CUSTOMER
BY TELEPHONE
GAS OPERATING DEPT.
78 EMPLOYEES
ADJUSTMENT OF DOMESTIC GAS APPLIANCES
NO GAS - POOR SUPPLY
CLEARING STOPPAGE FROM SERVICES - HOUSE PIPING - ETC.
ADJUSTMENT OF AUTOMATIC WATER HEATER
MISCELLANEOUS REPAIRS
INDUSTRIAL FUEL DEPT.
6 EMPLOYEES
ADJUSTMENT OF COMMERCIAL & INDUSTRIAL EQUIPMENT
HOTEL RANGES
BRYANT BOILERS
DOMESTIC & COMMERCIAL HEATING EQUIPMENT
GENERAL SERVICE DEPT.
COUNTER
MAIL
TELEPHONE
53 EMPLOYEES - SEE EXHIBIT "S FOR DETAIL
BY TELEPHONE
ELEC. APPLIANCE REPAIR DEPT.
8 EMPLOYEES
ADJUSTMENT AND REPAIR OF ELECTRIC APPLIANCES - IRONS, WASHING MACHINES VACUUM CLEANERS ETC
ELEC. OPERATING DEPT.
25 EMPLOYEES
RELOCATION OF POLES & SERVICE LOOPS
REPLACEMENT OF BLOWN FUSES (PRIMARY - MAIN OR BRANCH FUSES)
FEEDER INTERRUPTION
POOR SUPPLY - MISC. CALLS
142 EMPLOYEES ENGAGED ENTIRELY IN COMPLAINT WORK
8 MOSE REPAIR MEN SPEND APPROX. 50% OF TIME ON COMPLAINTS
TOTAL 170 EMPLOYEES

Chart showing organization of departments in reference to the customer

ent of, or precedes the actual complaint, by preventing it through better methods of serving the public. It is a definite function of the department and may be likened to the efforts in other fields to eradicate disease by its prevention.

This branch of complaint work calls for a study of the operation of the various departments, and the changing of methods which are prone to cause delay in giving service. Better coordination between departments often means less time to complete an order. Time studies through regular analysis of the time to do certain jobs, and the plotting of curves illustrating this are often effective in speeding up some jobs when the superintendent is shown the result. These are but examples of the manner in which service is improved.

Approaching it from another angle, we have successfully conducted two post card campaigns in the past two years, involving the issue of 300,000 post cards.

These were sent to all of our gas customers to ascertain their satisfaction with our service, and required merely the checking of a space on the card to enable us to investigate it, the name and address being addressographed to save the customers' time in replying. Excellent results were obtained through these campaigns, data being compiled to show their effectiveness. Another means to the same end is a constant follow up of about 25% of all service complaints, several days after the workman has called, to learn if the service is then satisfactory. This is accomplished by telephone and mail, and creates a cordial relationship often expressed by the customer at the time of the inquiry. These results are also plotted and thus the variations are readily noticeable. The departments are furnished a copy of this analysis on a monthly basis for their information and action.

Additional Features

In addition to the foregoing, there are a number of other features which we believe are of value in serving the public. Stated briefly, these are—

Our "Thank You" letter sent to each customer upon opening an account.

The list of pay stations enclosed with that letter showing the convenience of paying at the various banks in the city adjacent to the customer's home.

The full page newspaper advertisments featuring the company's service, and giving the customer a knowledge of its operation that he could not otherwise obtain.

Stickers on bills from time to time inquiring if the service is good.

Automatic refund of deposits. The return at the end of one year after credit is found to be satisfactory.

The importance of "Handling Complaints" well stressed through the N. E. L. A. and A. G. A. National Committees on Public Relations.

Tagging meters when leaks are found, authorizing the plumber to turn on the gas after repairs have been made.

The Banquet of the Eastern States Gas Conference

Committee on State Representatives

THERE HAS BEEN appointed each year in the Accounting Section a Committee on State Representatives and contributions to Monthly. The duties usually assigned to this committee in the past have been:

(a) To secure information as to general practice on matters of accounting and commercial office work on inquiry of members.

(b) To assist other accounting committees to secure information they require.

(c) To determine the character of articles to be secured for the Accounting Section of the A. G. A. Monthly and secure authors for such articles.

The Section feels that this committee has functioned most admirably in the past but, as only formal reports of its work are presented at the convention, the only indication which the membership has of this service is confined to those who have used the committee to secure information and through the articles which are published in the Monthly.

The primary object of this article is to again call to our members' attention the opportunity which this committee affords for exchange of information between all parts of the country. If you have problems in your accounting and commercial office work, send them in to the chairman, Mr. A. L. Tossell, the Peoples Gas Light & Coke Company, Chicago, Ill., or to the Secretary at Association Headquarters. The practice and experience of the industry on your problem can be readily secured through the various state representatives appointed on the committee.

One very important additional duty which the committee has undertaken this year has been to induce a greater consideration of accounting matters in the various state and district gas associations which are affiliated with the A. G. A. To further this movement arrangements have been made for the presentation of brief addresses before the annual meetings of state associations outlining the objects and accomplishments of the A. G. A. Accounting Section. A general address on this subject at the recent meeting of the Illinois Gas Association was given by Mr. W. A. Sauer as well as a specific address by Mr. J. G. Reese of Baltimore on what the A. G. A. Insurance Committee is attempting to accomplish. Arrangements are in course for similar addresses at annual meetings of other state associations.

This is a work in which all members of the Section should have a live interest. Since the inception of the A. G. A. Accounting Section there is no question but that the important part which the accountant plays in the proper functioning of the gas company organization has been realized as never before. The accomplishments of the Section in its brief career form a record to be proud of and there is no reason why this important branch of our business should not receive the attention it deserves in the deliberations of the various local gas associations. Mr. Tossell and his committee are energetically pushing this missionary work. They will appreciate any suggestions you have to make or any problems in their field upon which you desire further information.

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PUBLICITY AND ADVERTISING SECTION

J. M. BENNETT, Chairman — F. L. BLANCHARD, Vice-Chairman

CHARLES W. PERSON, Secretary

MANAGING COMMITTEE—1924

BORDEN, A. W., Hastings, Neb.
BURNS, J. J., St. Louis, Mo. (Missouri)
CLIFFORD, F. S., Fitchburg, Mass. (Gas Sales of N. E.)
COONEY, E. J., Lowell, Mass.
COOPER, STUART, Charleston, S. C. (Southern)
CRONE, F. W., New York, N. Y. (Empire State G. & E.)
DRURY, N. B., San Francisco, Calif. (Pacific Coast)
FENNIMAN, J. R., New York, N. Y.
FISHER, R. E., San Francisco, Calif.
FRANK, M. H., Fond du Lac, Wis.
FRANKLIN, S. J., Millville, N. J. (New Jersey)
GOULD, WILLIAM, Boston, Mass. (N. E. Gas. Eng.)
GREEN, H. L., Waterloo, Ia. (Iowa)
HALLADAY, G. D., Grand Rapids, Mich. (Michigan)
HAWKS, A. W., Jr., Baltimore, Md.
HUMM, A. W., New York, N. Y.
JANSEN, F. A., Ottawa, Ont., Can. (Canadian)
LIGHTBODY, JAS., Vancouver, B. C.
MCMAHON, J. J., Cleveland, O.
MORRIS, H. C., Dallas, Texas. (Southwestern)
MULLANEY, B. J., Chicago, Ill. (Illinois)
MYERS, G. L., Portland, Ore.
POTTER, CLYDE H., Los Angeles, Cal.
ROLSTON, R. J., Philadelphia, Pa. (Pennsylvania)
SHEPARD, I. C., Evansville, Ind. (Indiana)
SOULES, E. E., Chicago, Ill.
STARR, L. K., Atlanta, Ga.
WATT, A. C., New York, N. Y.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Contact With State Information Bureaus—J. S. S. RICHARDSON, Philadelphia, Pa.

Nominating—F. W. CRONE, New York, N. Y.

The Public Service Information Committee Movement

J. S. S. RICHARDSON, Director of the Pennsylvania Committee.

PUBLIC INTEREST in public utilities in the United States is greater today than ever before. That is because the public's interests and those of the public utilities are gradually becoming more closely interlocked.

The transition of the public's status in relation to the services of electric light and power, gas, telephones, street railways and water supply, has been especially apparent in the growing list of customer owners of public utility securities throughout the country.

The natural let-up, five years ago, from war's reaction and all of the abnormal conditions of our wartime economic movement left the American people nervous and in a mood for fault-finding. The foreign neighbors were out of range, so they sought domestic targets. That is why, perhaps, in the beginning of 1919, the public utilities, in spite of their common sacrifice in the emergency, were subjected to what, in some sections, amounted almost to persecution.

It was then that Samuel Insull, dominating personality of the industry in Illinois, looked about for a remedy. He knew that most of the criticism hurled at the public utilities was undeserved. Those who criticized had not examined the facts. Although fair minded when informed, the American people are unthinking as they are unthanking when not informed. And Mr. Insull knew that the primary fault lay at the door of the public utilities themselves; not in doing the things which the public, hearkening to demagogic utterances in some sections of the press and on the platform, believed they were doing, but in failing to come right out into the open with the facts.

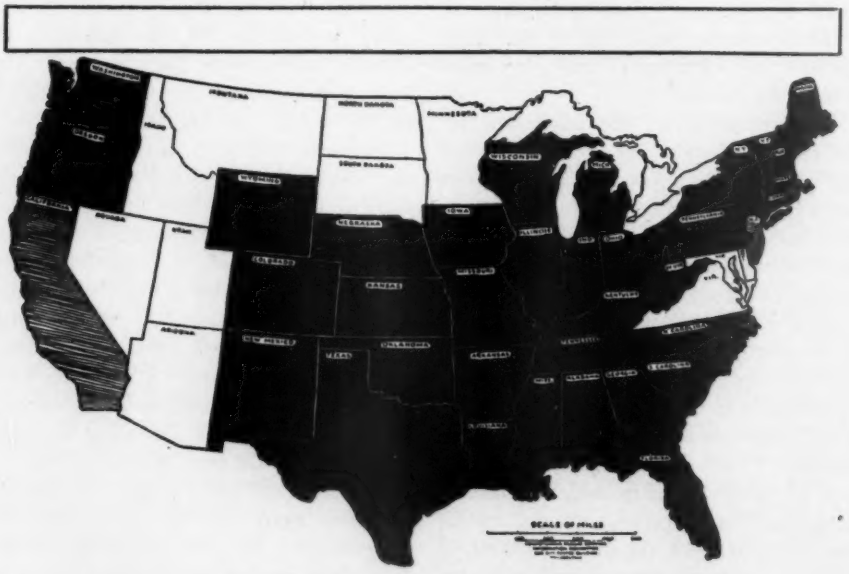
Samuel Insull saw the light through the post-war murk and governed himself accordingly. He acted with that celerity for which his section of the country is noted. The Illinois Committee on Pub-

lic Utility Information was formed and the slow-moving process of clarifying the falsely charged atmosphere was begun. Painstakingly and with system the bureau went to work. Such information as could be deemed of news value was issued to the newspapers.

Fed-up, as they were, in the war years, with propaganda, and predisposed, from an insufficient knowledge of the facts, against the utilities, newspaper editors subjected the issued material to the ultimate test as to its news value before giving it space. The facts were there, however, and it was used.

Of course, the slow but steady improvement in the situation in Illinois soon became apparent to utility executives in other states, particularly in those contiguous. The movement in Illinois had crystallized, had taken concrete shape. Followed soon afterwards the initiation of similar movements elsewhere in the Middle West. New England then got in line and the South took it up about that time. The Far West next sensed the necessity for an organization on the Illinois model; then New York entered the lists.

Under the guidance of Philip H. Gadsden, Vice-President of The United Gas Improvement Company, in May of last year, Pennsylvania organized in order to tell the public its utility story. This action on the part of the Keystone State's utilities appeared to stimulate others in widely separated areas who had been considering the movement. Immediately Louisiana and Mississippi organized a joint bureau. Kansas and Oregon followed. Toward the end of the year the Carolinas formed a committee and recently Florida and Connecticut opened bureaus. Soon New Jersey is expected to establish a bureau as a co-ordinating part of the Pennsylvania bureau. Thus thirty-seven states will be in the movement.



WHERE THE COMMITTEES ARE NOW

Black—States where committees are operating. Shaded—States where committees are being formed

Concerning the news matter furnished to newspapers, it may be timely to emphasize the fact that the issuance of anything susceptible of being construed as propaganda has been studiously avoided by Public Service Information Committees. The advertising columns of the newspapers are open at the customary advertising rates. That is where utility advertising belongs.

So far as the Pennsylvania Committee is concerned, if the data we assemble for publication cannot be subjected to editorial scrutiny for the subtle touches of the propagandist or the press agent—the two are synonymous—we consign it to the waste basket. It were futile to do otherwise.

As a news disseminating agency the Committee Bureau functions on a scale broader than if fashioned to issue utility information only of state origin. The information departments of the national organizations, the American Electric Railway Association, the National Electric Light Association, the American Gas Association, the Natural Gas Association of America, the American Water Works Association and the American Telephone Associations, can reach the majority of newspapers of each state only through the distribution channels established by the Public Service Information Committee there operating. There is a wealth of such data relating to scientific research and economics which everyone realizes has high news value.

In no two states are the operations of the committee the same. Each fits its work to local conditions, yet each follows several established fundamentals. Among these fundamentals is a rule which runs: "Do not mix in politics. Do not engage in controversies. State only facts. Encourage every utility executive and every employee to tell the story. Play fair."

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Mr. Insull Again

See what happens when a man and an idea meet—

"Samuel Insull, of Chicago, has won a high place in the industrial world by his handling of great producing and distributing plants for electric light and power. In his traction companies 2 per cent of the income is allotted to advertising expenditure, mainly through the daily newspapers, which have proved their value, not only to Mr. Insull, but to every hard-headed business man who investigates this subject.

"The advertising policy of the Insull companies has for its definite objectives getting the general good-will of the public, increasing interest of employes, increasing the selling output of the companies and securing from the public the steady inflow of new capital necessary to finance the companies' operations, development and expansion.

"What advertising is doing for the Insull companies it will do for any business, great or small, if it is done systematically and consistently."—Trenton State Gazette

TO THE FULL EXTENT OF THE LAW

The Counties Gas & Electric Company

announces that all persons

Found Stealing Gas or Electricity

will be uncompromisingly prosecuted and that the full penalties provided by law, which carry a

$500 Fine and Three Years in State's Prison

will be insisted upon against all persons convicted of this crime

COURT TRIAL

The Honorable President Judge John Faber Miller, in disposing of a case of larceny in last week's session of quarter sessions court, addressed the defendant as follows:

> . . . While, of course, in every criminal case the public is interested, yet, in the ordinary larceny case, the major interest lies in the person who has been robbed. The utility company which sells service to the general public, and, I don't care whether it is an electric light company, a gas company, or a water company, or any other institution of that kind—must, to a large extent, rely upon the honesty of its patrons, because, except at a terrific expense, it cannot police every place wherein it sells service, check it up and watch it; and where people do steal from it, their theft adds, in a sense, to the burden of all the rest of the public, because, under the Public Service Company Law of the State, at the present time, these companies are so regulated that they are permitted to make money, and anything that goes into the overhead has to be distributed amongst the rest of us.
>
> Therefore, as I take it, the theft of water, gas and electricity is to be distinguished from stealing the private property of the ordinary individuals . . . .

THE PENALTY

Penalty for larceny under law is as follows: If any person shall be guilty of larceny, he shall on conviction, be deemed guilty of felony, and be sentenced to pay a fine, not exceeding $500, and to undergo an imprisonment, by separate and solitary confinement at labor not exceeding three years.

THE COUNTIES GAS AND ELECTRIC COMPANY WILL INSIST THAT ITS PATRONS BE PROTECTED BY THE PROSECUTION OF ALL PERSONS CAUGHT COMMITTING THIS OFFENSE TO THE FULL EXTENT OF THE LAW

Protecting Its Patrons

Probably the first "Ad" of its kind

What a House Organ Should Contain

PROBABLY NO ONE will quarrel with the reminder that little, if anything, about a public utility is capable of running itself. Very often, however, too little attention is paid to the publication of employee house organs. It is not always realized that there are rules which govern industrial and public relations which are just as valid, though possibly a bit more flexible, as those which govern the manufacture of gas.

Mr. James Myers, the author of a forthcoming book on "Representative Government in Industry," has made a special study of industrial house organs. His findings and conclusions, while not always applicable to special utility problems, should be read by everyone who believes in the power of the printed word to create mutual confidence and understanding among the employer, the salaried man and the wage earner.

"The plant paper, issued weekly or monthly, may prove a useful means of constructive publicity," he says in a recent number of the Century Magazine. The fact is, however, that in actual practice the vast majority of them fail utterly to accomplish their object.

"There is perhaps no other field in which the employer appears to such poor advantage to his workers," Mr. Myers charges. "There are, perhaps, no circumstances in which capital looks more like a hypocrite to labor than in the publication of the so-called 'employees' magazines.' Most of these publications display a statement that 'this paper is published by and for the employees,' while everybody knows perfectly well that they are published by the management and for the interests of the company. This fact is patent enough upon the pages of those periodicals which are filled with preachments about 'loyalty to the company,' sound economics, the dangers of Bolshevism, the silliness of socialism, the un-American character of agitators' and anti-union propaganda. They extol the virtues of thrift, cooperation, obedience, and contentment for the working class. Employee magazines often present us with the strange phenomenon of perfect silence upon the subjects which lie nearest to the hearts of the employees....."

As one of his constructive proposals, Mr. Myers advocates some kind of employee representation on the paper or magazine, and suggests that the executive or secretary of industrial relations should act on the editorial board, preferably as managing editor. If this is done, he says, "it can also make of the factory publication a positive means of linking together the distant stockholder, the management, and the worker in a new understanding of one another's points of view. We may then," he continues, "look for a new industrial literature which will reflect the changed relations in industry. Here and there the new note is already being heard."

"In addition to publishing sincere and democratically agreed upon inspirational material," writes Mr. Myers, "the plant paper should make room in its pages for the usual photographs of the infant sons of popular employees, pictures of pretty girls employed in the various departments, snap-shots at picnics, and illustrated news of various phases of welfare work. 'Personals' and plant jokes are dear to the hearts of the people. The factory magazine should be composed of a judicious mixture of the sublime and the ridiculous, probably in the proportion of about fifty-fifty.

"Even the technical industrial matter

should be presented in attractive, popular, local form, not clipped from other periodicals or bought by the yard from commercial companies. Among the subjects which should be included are technical efficiency, production records, safety and health, labor legislation and social progress, employee-representation news, the decisions or minutes of committees, suggestions, criticisms, a 'question-box,' and writeups of various departments, giving each operative an idea of the processes and problems of other departments than his own and how the work of all is related to the finished product. Important articles and their own 'personals' should be published also in the language of any nationality of foreign born who may constitute a considerable per cent of the pay-roll.

"In addition to the posting of minutes, the holding of 'town meetings,' and the publication of a plant paper, further educational publicity in connection with employee representation may be carried on by means of posters of all sorts, special pay envelopes or printed inserts for the pay envelopes, notices on bulletin boards, etc. The judgment of the workers' representatives will be sound and can usually be accepted as final upon the value of any commercial articles which may be offered to the company in the line of 'educational' literature intended to improve the general morale of the employees.

"The manager of a certain mill wisely asked the workmen's committee for advice upon the distribution of a certain 'line' of this talk which he himself thought was excellent. It told 'How Jack Made Good,' but the workmen's committee unanimously pronounced it 'bunk' and smiled broadly at what 'they' would say about it if it was passed out in the mill. The manager did not invest. Other managers would be wise to seek the sound sense of the workers' representatives in such matters.

"Finally, we would emphasize the fact that printed word and public meeting are not wholly effective publicity unless they are constantly supplemented by the personal work of the employee representatives themselves and their executive, who must constantly circulate among their constituents, answering questions, giving explanations, supplying information, dispelling misunderstandings, cleaning the machinery, and greasing the wheels of industrial democracy."

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In Memoriam

Vincent L. Elbert, Gen. Mgr., St. Joseph Gas Co., St. Joseph, Mo.

H. J. Gerlich, Sales Office Mgr., Flatbush Gas Co., Brooklyn, N. Y.

Thos. A. Hillgrove, Central Union Gas Co., New York, N. Y.

Heirs of All the Ages!

HEIRS they are at the first breath—heirs of a wonderful civilization in the creation of which man has labored for nineteen hundred years, to make life more livable.

Think of the conveniences surrounding the babies of today—conveniences never dreamed of by their grandparents! And think what these mean to the mothers!

We number among our customers thousands of mothers and babies whose lives are made healthier and happier because of gas service, the modern burden-bearer

It is a privilege to serve these little tots and their mothers. It is also a great responsibility

At Your Finger Tips!

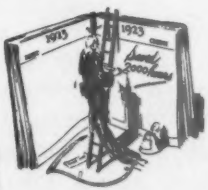
Gas service is practically an [illegible] service.

You don't have to run downstairs and get it—or around the corner to the store—or even out the door to bring it off the porch. You don't have to order or 'phone for it, or wait until it arrives—

It's there! Right at your finger tips!

At any hour of the day or night there are pipes full of gas, waiting to serve you—to cook your meals, heat your water, light your rooms or heat you warm—a real home comforter.

And when gas has performed its service for you and you turn it off, it is gone—leaving no smoke, ashes or dust.



Where is the Time We Save?

We speak of the radio as saving time, and of this or that invention as saving time.

But where is all the time that is saved? Doesn't it seem as if there were less than ever before?

Time is saved by inventions, by the conveniences which you have, and which your forefathers had not

Time is saved in your better homes, in your better lighting, in your better heating. Time is saved by your bathtub, your newspaper, your gas, electric, street railway, telegraph and telephone services

And best of all, this time saved remains in your daily life. You accomplish more, yet enjoy more leisure

The Twentieth Century Fuel Bin

In England, the gas holder is the symbol of more sunshine and cleaner air

In America, the gas holder is a constant reminder of our emancipation from the -tyranny of coal, and all that coal represents—ashes, soot, dirt, labor

One of the most impressive things about gas service is that it's CLEAN.

And because it's clean, it makes possible clean homes, clean work, clean food

Today is the day of gas Fuel.

Some of our Good-will Ads

Prominent British Utility Men to Welcome Americans

SOME OF THE outstanding executives of public utility companies abroad will welcome the delegates of the Public Utilities Advertising Association when they arrive in London to attend the International Convention of the Associated Advertising Clubs of the World, July 14-19.

A cablegram received from F. W. Goodenough, Executive Chairman of the British Commercial Gas Association, states that Lord Ashfield, chairman of the Underground Electric Railways Company, of London, has consented to serve as president of the British division. Among the other prominent utility men abroad who are on the committee with Lord Ashfield are Sir William Kay, Chairman of the Manchester Corporation Gas Department; Alderman W. Walker, of the Manchester Corporation Electricity Department; Sir James Lyne Devonshire, director of the Underground Electric Railways Company, of London; D. Milne Watson, president of the National Gas Council of Great Britain and Ireland; J. W. Beauchamp of the British Electrical Development Association, and Dr. W. J. Black, of the Canadian National Railway.

The Public Utilities Advertising Association will hold a one-day session and luncheon on Wednesday, July 16th at Wembley. Eight addresses will be made, four by the British delegates and four by the American delegates. Subjects of British papers will be, "Company Ownership and Operation under Public Control," "Cooperative Advertising of a Public Utility," "The Personal Element in Advertising" and "Railway Advertising."

American speakers and their subjects will be, "Municipal versus Private Ownership of Public Utilities," by B. J. Mullaney, The Peoples Gas Light and Coke Co., Chicago; "How to Win Good Will for the Company," P. L. Thomson, Western Electric Co., New York; "Progress of Customer Ownership in the Sale of Shares," F. L. Blanchard, H. L. Doherty & Company, New York; and "Legal Aspects of Public Utility Advertising," by a speaker yet to be selected.

In addition to Mr. Blanchard and Mr. Mullaney, other gas men who will make the trip are Frank R. Barnitz, Consolidated Gas Company, New York; J. E. Davies, Peoples Gas Light and Coke Company, Chicago; M. C. Robbins, Gas-Age Record, New York, and R. J. Canniff, Central Hudson Gas and Electric Company, Poughkeepsie, New York.

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"Faith in the American people means a faith in their ability to form sound judgments, when once the facts have been presented to them clearly and without prejudice."

—PRESIDENT COOLIDGE, New York, April 22, 1924.

MANUFACTURERS SECTION

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C. W. BERGHORN, Jr., Secretary

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BARTLETT, C. E., Philadelphia, Pa. (New Jersey)
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HOBBS, G., Toronto, Ont., Canada. (Canadian)
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STOCKSTROM, A., St. Louis, Mo. (Missouri)
WHETSTONE, W., Philadelphia, Pa.
WILSON, H. A., Newark, N. J.
WOLFE, A. McW., Baltimore, Md. (Southern)

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Exhibition—GEO. W. PARKER, St. Louis, Mo.
Nominating—F. A. LEMKE, Kalamazoo, Mich.
Division of Accessories Manufacturers—H. A. WILSON, Newark, N. J.
Division of Apparatus & Works Manufacturers—S. F. FAIRCHILD, Ambler, Pa.
Division of Gas Range Manufacturers—CHAS. T. AARON, Boston, Mass.
Division of Heating Appliance Manufacturers—THOMSON KING, Pittsburgh, Pa.
Division of Industrial Appliance Manufacturers—WALTER WHETSTONE, Philadelphia, Pa.
Division of Lighting Appliance Manufacturers—TOWNSEND STITES, Gloucester, N. J.
Division of Meter Manufacturers—J. D. MCILHENNY, Jr., Philadelphia, Pa.
Division of Office Labor Saving Devices—E. A. NORMAN, New York, N. Y.
Division of Water Heater Manufacturers—W. M. FOWLER, Philadelphia, Pa.
Division of Supply Manufacturers—J. J. GREENE, New York, N. Y.

Merchandising Gas Appliances on the Pacific Coast

H. R. BASFORD, President, the Pacific Coast Gas Association.

The following most interesting communication from H. R. Basford, President of the Pacific Coast Gas Association, issues a friendly challenge to the views expressed in "The Gas Company as a Merchandizer" by John J. Quinn, which appeared in our April issue. Is should be of intense interest to our readers as presenting the feeling of the Pacific Coast gas men on this subject.

I HAVE JUST BEEN reading with great interest in the April issue of the Association Monthly, the article by Mr. John J. Quinn, entitled "The Gas Company as a Merchandizer." I believe such discussion as Mr. Quinn brings forward is very valuable, indeed, but, in a friendly spirit, I must challenge his views which, evidently, are expressed through viewing a narrow horizon. I feel that the subject should be taken up from the viewpoint of the entire country, and not a limited district East of the Mississippi River.

More gas appliances are sold, per capita, on the Pacific Coast than any other place in the entire world and 90% of them are sold by merchants. It is the viewpoint of most of the gas men on the Pacific Coast, together with wholesale and retail dealers in gas appliances, that, with the exception of purely industrial installations, the great sale of gas appliances in the West has been brought about by sound merchandising methods through dealers, and not through gas companies, but through friendly cooperation between the gas companies and the dealers.

During one week in April, there is being held all over the State of California, Gas Equipment Exhibit for Better Homes. This movement, fostered by merchants exclusively but with the kindly co-operation of the utilities, will cause more appliances to be sold in the next two months than any gas company campaign ever produced. More inches of display advertising will be used than has ever occurred before through any means, during a given period.

I must take sharp issue with Mr. Quinn in his statement that time has apparently shown the wisdom of appliance merchandising by gas companies, to the extent that discussion is superfluous. Gas companies may have the basic necessities for leadership in this chosen field, but no gas company has yet shown the stimulus that is being given to all recognized gas appliances in California today. And more than this, I do not believe that gas companies are good merchants. The history of the matter is that most gas companies sell their merchandise along totally uneconomic lines if viewed from a merchandising basis. Their prices are entirely out of line and no merchant even cares to enter the gas appliance field in such cities where this condition exists.

Every firm of any size handling gas appliances is amply able to finance its installment paper and is well set up for this class of business, so that along sound merchandising lines, the gas company is no more financially able to carry forward this business than any other merchant.

Some years ago, when the idea of gas was not as strongly sold to the public mind as at present, it would be readily agreed that it was necessary for gas companies everywhere to make strong inducements in the way of price concessions in order to increase the sale of the product. But this, in most sections, is no longer the case. The most regrettable fact about gas companies merchandising, as many of them do, at low-mark-up figures, is that in most instances, only a few makes of each kind of appliance can be shown in the city affected. Even in the Eastern States, manufacturers of of some types of appliances have found it advisable to draw away from gas company domination, not seeking business from them and in a few instances, even refusing to sell them at all. They have felt this to be necessary because the practice has been that one year a manufacturer is in business in a city through gas company favor and the next year is practically out of business in that city. This is a very unhealthy state of affairs. The writer has known of instances where manufacturers have gone to great expense on special campaigns, advertising, and whatnot, laying a ground-work for an intensive business in a city, only to find that through the policy of the company, or through the action of some purchasing agent, which is unwarranted, they are out of business before being able to realize any profit from their intensive effort.

It is my firm belief, and that of the majority of gas men on the Pacific Coast, that it is better to encourage all merchants handling heating or cooking devices, to sell gas appliances rather than sell appliances using other fuels. And the only way to encourage them is to allow them to make a profit, similar to that which they realize from their other merchandise. The public is not entitled to purchase gas appliances at a lower basis than the economic law of purchase and resale shows in other commodities.

Where gas companies dominate the sale of appliances at little, or no, mark-up, there will generally be found that merchants who offer appliances at all,

are purchasing the cheapest and worst types that are manufactured.

A visit to the representative furniture, hardware and specialty gas appliance stores in California will reveal larger and better gas appliance displays than are in existence in most of those cities where the public look to the gas company for such merchandise. Also, the product of many different factories making the same class of goods will be found in a larger number of stores scattered throughout the community.

The largest gas appliance exhibit in the world is maintained for the service of the trade in San Francisco, in the Furniture Exchange Building, there being 38,000 feet given over to this display on one floor and several thousand feet on another one.

The Gas Appliance Society of California which is an organization formed of the appliance dealers, in which will be found members from each local gas company, is doing most progressive work to raise the ethics in the sale of gas appliances and in training both the public and dealer in the sale and use of gas.

The greatest work that gas companies can do is to cooperatively sell the romance and the economic value of gas through national advertising, leaving advertising of special appliances to the merchants.

While it is to be realized that this view will be contradicted by those earnest men in the East who have been working many years for the betterment of the industry and its service to the public, California's experience we believe, will lead the way so that, in the not too far distant future, our eastern friends will see the wisdom of our methods.

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Save Gas in 1876

Around the world our cry of "save gas" is ringing with almost as much volume as did the famous shots which were fired by the "rude bridge which stemmed the flood." But just see how old our cry is. In the American Gas Light Journal of October, 1876, appears the following story:—

"The idea of saving gas is getting to be a mania with some of our city officials.

" 'What are you coming home at this hour for?' asked the wife of one, as he came stumbling in at six o'clock, the morning after the great Carl Schurtz torch-light reception.

" 'Caush, m'dear,' was his naive reply, 'I di'n' want to come in the ni', but wait till morn', ter save 'er gas, you shee.'

"She couldn't see it in that light, and told him so as she led him into the house by the ear."

Down With Superstition

TO GET THE MOST out of the use of gas in safe, convenient service, and with the utmost economy, it is necessary, of course, that it be used in appliances of quality, that possess to the utmost the elements of freedom from trouble, safety, durability and efficiency. Quality in gas burning appliances is more important than is quality with many other things that might be brought to mind. But, because most folks have little understanding of things outside of their own business, the efforts to sell good gas appliances that are built to give this ideal service frequently meet with the superstition, "Too costly to buy."

The point is referred to as a superstition because, while the purchase payment involves the investing of more dollars than would be involved in the purchase of a cheaper appliance of lesser useful life and of less operating economy, analysis would dispose of the comparison.

Suppose, for instance, that the appliance costs $240.00, has an estimated useful life of twenty years, and there are four people in the family. The cost comes down to $12.00 per year, $1.00 per month, 25¢ per week, or only a penny per person per day. Now suppose that another appliance of less quality costs $125.00 and has a possible useful life of six years. The cost per year comes to $20.82, as compared with $12.00 per year for the better appliance. This gives a figure of $1.74 per month, 44¢ per week, or about 2¢ per person per day.

Few people realize just what price represents in durability and all that it represents in length of useful life, in freedom from repairs or adjustment needs and the savings resulting therefrom, in freedom from interruption to service with all the attendant difficulties, to say nothing of the operating economy which invariably is much greater in the better appliance than in the poorer one.

Real analysis of just what these points mean will almost always result in the sale of the better appliance rather than the poorer one. It is only the lack of understanding of the differences that causes buyers to demand the poorer equipment rather than the better.

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The Right Way to Tell the Story

Our Company is a regular and consistent newspaper advertiser. We want our customers to know the truth, the whole truth and nothing but the truth about our great organization and the services we render them. We use the newspaper advertising columns to tell our customers these essential facts. It is a story that cannot be told in a day, so we plug on and on, consistently advertising, hammering home the truth, advertisement after advertisement.

—Northern Indiana Gas & Electric Company.

INDUSTRIAL GAS SECTION

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MANAGING COMMITTEE—1924

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CLARK, H. H., Chicago, Ill. (Illinois)
CRAWFORD, H. M., San Francisco, Cal.
DE CORIOLIS, E. G., Boston, Mass.
GALBRAITH, L. F., Oakland, Cal. (Pacific Coast)
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OSTERMAN, P. C., Elizabeth, N. J.
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RASCH, W. T., New York, N. Y.
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SELLMAN, N. T., New York, N. Y.
SLIMPIN, C. D., Montreal, Can. (Canadian)
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STEPHANY, E. J., Pittsburgh, Pa.
THOMPSON, W. D., Hammond, Ind.
VITTINGHOFF, H., Boston, Mass.
WATSON, H. E. G., Toronto, Can.
YEATON, G. D., Providence, R. I. (Gas Sales of N. E.)
YOUNG, A. W., Knoxville, Tenn. (Southern)
YOUNG, R. R., Newark, N. J. (New Jersey)

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Convention Program—F. F. CAULEY, Chicago, Ill.
Cooperation with "Industrial Gas"—N. T. SELLMAN, New York, N. Y.
Educational—R. R. YOUNG, Newark, N. J.
Industrial Booklets—
Combustion—H. O. LOEBELL, New York, N. Y.
Hotel & Restaurant Uses—J. P. LEINROTH, Newark, N. J.
House Heating—E. D. MILENER, Baltimore, Md.
Large Volume Water Heating—W. T. RASCH, New York, N. Y.
Steam Boilers—H. VITTINGHOFF, Boston, Mass.
Wholesale Baking—H. M. HENRY, Pittsburgh, Pa.
1000 Uses for Gas—H. H. CLARK, Chicago, Ill.
Ceramics—C. C. KRAUSSE, Baltimore, Md.
Drying—J. ZANDON, Chicago, Ill.
Food Products—E. J. STEPHANY, Pittsburgh, Pa.
Forging & Heat Treating—W. D. THOMPSON, Hammond, Ind.
Soft Metal Melting—W. M. HEPBURN, New York, N. Y.
Tank Heating—OSCAR BOWEN, Chicago, Ill.
Nominating—F. F. CAULEY, Chicago, Ill.

Third Industrial Gas Course, Massachusetts Institute of Technology

THIS COURSE will be conducted at the Massachusetts Institute of Technology, June 16 to June 27, 1924. It is sponsored by The New England Association of Gas Engineers, the Gas Sales Association of New England, the New England Association of Commercial (Gas) Managers and the Guild of Gas Managers of New England.

To quote from the prospectus: "Many changes have been made in the laboratory at the Institute and the course has been broadened and enlarged considerably so that those who attend this year will come out with even better preparation on the subject of Industrial Gas than those during previous years."

The program is as follows—

	JUNIORS	SENIORS
Monday, June 16 9:00 to 9:15 A.M.	Opening: Francis E. Drake, Chairman Gas Educational Committee, Manager Gas Dept., Lynn G. & E. Co.	With Juniors
9:15 to 10:45	Water Gas Manufacture: H. Vittinghoff, Engineer, Stone & Webster	Methods of Testing Appliances

	JUNIORS	SENIORS
11:00 to 12:30	Coal Gas Manufacture: R. L. Fletcher, Engineer of Manufacture, Providence Gas Co.	
1:30 to 4:30	Trip to Gas Works: Courtesy A. M. Barnes, President, Cambridge Gas Light Co.	Laboratory Experiment in Measurements of Temperature
Tuesday, June 17 9:00 A.M.	Heat Temperature Thermal Expansion	Gas Laboratory Practical Operation Testing of all Appliances by groups
1:30 to 4:30	At 17 Roxbury St. Boston Consl. Gas Co., Lecture Room Practical Burner: Adjustment to Insure Correct Combustion, R. J. LaFore, Engineer of Industrial Sales	Gas Laboratory
Wednesday, June 18 9:00 A.M.	Melting and Boiling:	Gas Laboratory
	Specific Heat:	All Senior Periods in Laboratory except during joint lectures
	Transfer of Heat: Radiation Convection Conduction	
1:30 to 4:30	Actual Use in Laboratory of Thermo-couples, optical pyrometers, etc.	Appliances to be operated and tested: Boilers—Bryant Kane Ofeldt Roper
Thursday, June 19 9:00 A.M.	Refractories: Combustion:	
1:30 to 4:30	Laboratory Study of Thermal Conductivity	Ovens—Gehnrich Improved Blodgett
Friday, June 20 9:00 A.M.	Heat Calculations: Cost of Different Fuels: Efficiency Calculations:	Furnaces— American Gas American Carbonizing Surface Combustion Gilbert & Barker Improved Soft Metal Maxon Brass Recuperative Brass Cauldron
1:30 to 4:30	Calorimeters: Gas—Bomb	Water Heaters— Instantaneous Storage Immersion Selas System
Monday, June 23 9:00 A.M.	Combustion and Utilization: Henry O. Loebell, Vice-President and Gen. Mgr. Combustion Utilities Corp.	Joint Session with Junior Students
1:30 to 4:30	At 17 Roxbury Street, Boston Cons. Gas Co., Industrial Laboratory Actual Treatments and demonstration of various furnaces	Gas Laboratory

	JUNIORS	SENIORS
Tuesday, June 24 9:00 A.M.	Gas Laboratory:	Heat Treatment, Laboratory, Victor O. Homerberg, Mass. Inst. of Tech.
1:30 to 3:15	Heat Treatment: Prof. R. S. Williams, Mass. Inst. of Tech.	Joint Session with Junior Students
3:30 to 4:30	Heat Treatment, Laboratory	Gas Laboratory
Wednesday, June 25 9:00 A.M.	Low Temperature Ovens: M. B. Webber, Engineer, C. D. Parker Co.	Gas Laboratory or Attendance at joint session with junior students (optional)
1:30 to 4:30	Heat Treatment, Laboratory	Gas Laboratory
Thursday, June 26 9:00 A.M.	Volume Water Heating: N. T. Sellman, Engineer, Asst. Secretary-Manager, American Gas Association	Joint session with Junior students
1:30 to 4:30	Conducted Visitation to working installations of Ovens Brass Melting Heat Treating Water Heating	Gas Laboratory
Friday, June 27 9:00 A.M.	Fuels used in Industrial processes: E. G. DeCoriolas, Engineer, Eastern Service Co.	Joint Session with Junior students for entire day
	General Discussion of Specific Problems, Questions and Review at close of second forenoon period	
12:30	Riverbank Court Hotel: Luncheon and Annual Meeting of Industrial Organization Address by— Col. Charles R. Gow, Pres. Charles R. Gow Co.	

The committee consists of Francis E. Drake, chairman, Lynn, Mass.; John J. Quinn, secretary, Quincy, Mass.; Clifford E. Paige, Boston, Mass.; and H. Vittinghoff, Boston, Mass. The course is under the direct charge of Prof. Gordon B. Wilkes, O. K. Bates and George Thomson.

The enrollment fee is $50 per student and application should be made, accompanied by check, to John J. Quinn, 7 Granite St., Quincy, Mass.

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Industrial Display Rooms of the Rochester Gas & Electric Corporation

The Commercial Bread Baking Load

HAROLD S. BABB, Industrial Engineer, Portland Gas & Coke Company, Portland, Oregon.

Harold S. Babb

THE COMMERCIAL BAKING of bread has long been considered one of the most advantageous outlets for manufactured gas available to all gas companies. The inevitable presence of bake shops in every city, large and small, is one of the more potent reasons why this field has received considerable attention from commercial managers of the utilities. The same cannot be said of other fields for industrial gas sales. The universal appeal of the subject matter as well as the present situation in the baking industry perhaps warrants the presentation of another paper upon the subject.

The baking industry as it affects or is affected by the gas industry is composed of a variety of shops each presenting a rather individual problem. For the purpose of analysis, the industry has been divided into classes determined by the nature of the business done. Other bases might be chosen for the analysis, such as fuels used or types of oven used. The oven and the fuel however, are governed to a great extent by the nature of the shop being considered. It is our purpose, moreover, to show not so much what is being or has been done with gas, as it is to reach conclusions as to what can be done to insure the enjoyment of the major portion of the baking business of our respective communities.

We therefore have the bakeries classified broadly as follows:

I. Wholesalers:

A. The strictly wholesale shop having the grocery stores as an outlet for their product.

B. The wholesaler who also maintains one or more retail stores.

Note: The first of these will be the bake shop as it was known for many years until quite recent times. The product is principally bread, rolls, coffee cakes, doughnuts, and such staple articles. The second subclassification is likely to have a more diversified line in keeping with the modern tendency among bakeries.

II. Retailers:

A. Suburban shops. Diversified baking.

B. Downtown shops. Located at traffic centers and selling to home bound workers.

III. Restaurant Bake Shops.

This class includes hotels, restaurants, clubs, department stores and institutions baking for their own consumption.

IV. Specialty Bake Shops.

A. Pie bakeries.

B. Cookie bakeries.

These of course may be divided and subdivided to any desired extent but, as listed, they serve to illustrate the several problems involved in adequately serving this industry.

The Wholesalers

The wholesalers compose perhaps the simplest problem we have to meet from a purely theoretical point of view. There has been developed for the use of gas fuel a baking machine commonly known as the travelling oven.

I am unable to speak regarding the travelling oven from the standpoint of direct personal experience. It is, however, well accepted that the travelling oven has so many advantages entirely aside from the fuel economy that its use is to be recommended wherever output warrants the capital expenditure. The travelling oven economizes in several major ways. It is economical of floor space, a matter of prime importance in an era of advancing building costs and high rental values. It is adapted to efficient production routing of materials through the plant. It is economical of labor. It is subject to automatic control of temperatures and distribution of heat as required, insuring absolute control of the quality of product. With a fuel cost running as low as ¾ cubic foot of gas per loaf, these ovens are a very attractive investment for the large wholesole bread baking plant. All our wholesale shops however, do not fall into the class which can consider baking on the scale necessary to make these ovens a practical solution of their problems.

The shops baking on a smaller scale will be found using probably brick ovens either of the dutch oven type or the indirect continuous fired type. They will be using oil, coal, wood or gas fuel.

On the continuous fired ovens, we do not find it practical to compete with solid or liquid fuels. Cost data taken some time ago indicate comparative costs on indirect ovens as follows:

Gas fuel ..... 57¢ per bbl. flour
Oil fuel ..... 32¢ per bbl. flour
Wood fuel ..... 35¢ per bbl. flour
Gas at $1.00 per M.
Oil at $1.85 per bbl.
Wood: Fir Cord at $9.00 per cord.
Fir Slab at $5.00 per cord.

There remains then one other solution for the wholesaler in the intermediate class. This is to use a battery of rotary or reel ovens. This class of oven shows a good fuel economy in the intermediate sized shop. Our cost data shows 20¢ per barrel of flour for the fuel cost on a 5 oven shop, baking in the neighborhood of 1000 barrels of flour per month.

This compares very favorably with indirect fired oil fuel ovens at 32¢ as far as costs are concerned, but the brick ovens are preferred by many experienced bakers. They will undoubtedly handle such work as hearth breads better than the reel ovens. We have found the reel ovens to be excellent for shops baking mainly the ordinary loaf. These shops usually supplement the reel ovens with a deck oven for their pastry work. The shops using the reel ovens we find to come under our second division of the wholesalers' class, that is, they are usually centrally located and distribute their output through their own retail stores.

When such a shop reaches a capacity of about 500 loaves per day they reach a point where the battery of reel ovens does not adequately serve their needs.

It is at this critical point that a considerable problem is presented. To increase the plant capacity, invest in a travelling oven, and perhaps secure a new shop is a question for the business sagacity of the proprietor. There are many factors affecting the decision of a firm placed in this position. Chief among

them is the problem of sales. It would hardly be advisable for the gas salesman to advise concerning this problem, yet a baker in the position described is a potential gas user of considerable importance. The industrial salesman should be in the confidence of such a prospect and in a position to be advised as to the progress. He can often secure the present data of considerable value to the prospect, in reaching his conclusions and be in a position to present the case for gas fuel when the time is ripe.

The Retailers

The development of the suburban bake shop is one of the most recent outgrowths of the remarkable increase in the use of commercially baked products. Bake shops are now almost as numerous as grocery stores. Coincident with the increase in the number of shops is the increase in diversity of goods baked. The increased demand for the pastry line with its larger margin of profit is probably the reason for the large proportion of the increase in the number of shops. Bread can be successfully merchandised on the wholesale plan with outlets through the grocery stores. Pastry, however, must be fresh to be attractive to the housewife. For this reason the neighborhood or suburban diversified bakery, where the goods can be purchased and consumed the same day it is baked, gets the cream of the pastry trade.

The needs of the diversified shop are naturally different than the needs of the bread baker. Pastry work is done in dutch ovens, indirect fired ovens, reel ovens, electric ovens, and gas fired portable ovens. It is generally conceded, however, that the best pastry work is done in the deck oven. The good features of the portable oven almost exclude the dutch oven and the indirect oven from consideration in establishing a shop in a new location. Reel ovens are seldom chosen for the work, though some fine pastry work is being done in this type of oven, both gas and electric. The choice then of the suburban shop is likely to lie between an electric deck oven and a gas fired portable deck oven. All too frequently in the past, the tendency has been to choose the electric oven in spite of its admittedly higher first cost and operating cost. This situation, however, is chargeable directly to the appliance manufacturers' complacency and the apathy of the gas companies.

With a fuel that will operate an oven at 50 per cent of our competitor's costs, we have been in a position to merchandise an appliance at a considerably higher first cost than our competitors.

Instead of this, we have been content with poorly designed, cheaply constructed ovens that sell for less than half our competitor's appliance. We all know the fault and defects of the present-day portable cabinet or deck oven built for gas fuel, yet there has been no improvement in the design or construction of these appliances for twenty years. They are still to a great extent uninsulated or inadequately insulated sheet metal boxes with a set of burners in the bottom. It should appear at once that it is illogical to attempt to heat a 4-deck oven with a single heat source and expect to secure proper distribution of heat and uniformity of temperatures. It should be equally evident that adequate insulation, increasing the shop comfort and at the same time steadying the oven and reducing operating costs, would be a profitable avenue of improvement in bake ovens. Why then have portable ovens not received the attention to design that they deserve? The only reason suggested is that manufacturers and dealers consider their market secure without improving their product. None of us here on the

Pacific Coast but will readily realize that such is not the case. I would conservatively estimate that something over a thousand electric ovens have been sold on this coast in the past few years. The majority of these sales could have been secured by gas appliance manufacturers and the gas sales by the gas companies, had there been an acceptable gas oven to offer the purchasers. How often have you gentlemen lost a sale on an oven for that very reason and how often have buyers purchased electric ovens without even approaching the gas company, knowing that they had nothing to offer?

The first and most pressing need then is an adequate appliance to offer for this class of work. As to operating costs, our field is clear at least in the majority of the Pacific Coast cities. I think we in Portland have perhaps a situation as to gas and electric cost that is fairly representative. Our suburban bake shop of one or two oven size will reach the 1½ cent step of the electric rate. The average rate per k.w.h. paid will be around 2¼ to 3¢. The probable gas rate for a shop of this size will be 95¢ net. At these figures we can effect a saving of from 30 to 50 per cent over electric costs. Example of saving effected:

Shop No. 1

Electric 30 days	*Gas 30 days*	*Difference*	*Saving per cent*
$40.89	$19.20	$21.69	53%

Shop No. 2

$58.80	$26.60	$32.20	54.8%

The above shops have converted electric reel ovens and costs are secured immediately preceding the conversion and immediately following. Shop, baker, output, etc., are all constant and provide ideal conditions for comparative tests.

Reel oven replacing electric deck oven, for baking of meat pies. Costs previous to changes:

Electric Bill	$40.00
Gas Bill	14.00
Total	$54.00

Costs after changes:

Electric Bill	$ 5.00
Gas Bill	29.00
Total	$34.00

Saving: $54.00–$34.00=$20.00 per month. 37% saving.

We have converted 14 electric reel ovens and have recorded not one failure to effect a saving and to give satisfaction to the user. There remain 4 electric reel ovens unconverted in Portland and these are in a large shop which has under consideration a travelling oven and hence will not make any changes in present equipment.

An item of cost that may amount to a considerable figure is the element renewal of the electric oven. I recall the statement of one baker whose oven we converted in which he said that he would be perfectly satisfied if the fuel cost were equal to that of electricity as he would still save $200.00 per year on maintenance. This may be an exceptional figure, yet the fact remains that the maintenance of an electric oven is far more costly than that of the gas-fired oven.

The operating costs given are for suburban bake shops and are confined to reel ovens.

We have no data available covering the actual replacement of deck ovens with gas-fired deck ovens.

We have, however, the electrical consumption on a 3-oven shop in a department store, where the electric rate on the ovens is figured at 1¢ per k.w.h. and the gas rate at 55¢ per M. This is the most difficult competition we will be

called upon to meet in Portland. We expect to affect a saving in this case of 34% on operating costs exclusive of maintenance of ovens and have guaranteed a saving of 25%. In this case, we propose to use the new Gasco oven, a deck oven of our own design and construction, which we have determined to be an exceptionally economical oven to operate. While it is not the purpose of our company to become an appliance manufacturer, we have been forced to assume the role by sheer inability to purchase an oven that we were not ashamed to offer to our customers. We have built and installed six ovens in Portland and have shipped one away. It is an oven built for diversified baking, well insulated and with sufficient refractory material to provide ample heat storage. Properly managed, a 12-pan oven will turn out $75.00 worth of diversified bakery goods at a gas cost of 1000 cubic feet per day.

If it is necessary, as it seems to be, for the gas companies to pioneer the development of appliances of this kind, then it is high time that the start was made.

Our second classification of retail bake shops includes the shop located down town near some traffic transfer point, selling its output over the counter. The large part of the business of this class of shop is done in the late afternoon, selling to homeward bound workers or shoppers. Such a shop may have one to five ovens, though if more than two ovens are used, there is likely to be a second retail store not far distant.

Ovens favored for this class of business are reel ovens, for bread work and portable shelf ovens for pastries.

Here again we are meeting electric competition on the shelf oven. Shops which are using gas on their reel ovens for bread work are using electric deck ovens for pastries, notwithstanding the fact that they are earning a low rate for gas and the electric installation will come in at a comparatively high rate schedule. This class of shop will bear close watching on the part of the industrial gas man, especially where several retail stores are maintained. With an assured outlet for several thousand loaves daily, there is always the possibility of a progressive firm of this character expanding into the wholesale class and supplying grocers as well as their own retail stores.

Restaurant Bake Shops:

Another class of bake shop is that found operated in connection with a restaurant, hotel, club or hospital. These shops bake ordinarily for their own consumption. These shops are found in department stores and may, besides supplying the lunch counters of the store, sell at retail.

Some hotels and restaurants, especially if the buildings are old, may be equipped with a small or medium sized dutch oven. Ordinarily, however, the portable oven is found and the deck type is preferred on account of its adaptability. Here again, the situation demands a first class oven of the deck type and in its absence a large part of the business has gone to the electric oven manufacturers. With the right oven, this class should be easily held, because of the favorable gas rates earned by the consumption due to cooking appliances.

In cases where the dutch oven is found, its conversion to gas firing is usually not difficult, as space is ordinarily at a premium, fuel delivery inconvenient and costly, and, as already stated, the gas rate applying will be favorable.

Hotels and restaurants particularly

are good prospects for an oven with a good hearth, on account of the large demand for french breads and hard rolls. The electric deck ovens, on account of their light hearth, are unsuited for this class of baking. The heat storage capacity is lacking and the ovens do not have the "solid" heat these goods require.

Specialty Bake Shops:

The specialty shops usually met with are: pie bakeries, cake bakeries, cookie bakeries, cracker factories and hardtack and similar products.

We have three pie bakeries in Portland, two of which have both gas and electric oven equipment. In one, the electric equipment is preferred to the tin box gas ovens, which they have. The investment necessary to replace the electric ovens is a factor to this firm, which has recently built a new factory at considerable outlay. The second firm uses both gas and electricity in about equal proportions. The gas is used on a semi-portable oven, indirect fired.

An exclusive meat pie bakery is using a reel oven with good results. We here replaced an electric deck oven and shipped it to Gautemala to get it safely out of our territory.

The fault found with most pie ovens is a lack of heat storage in the hearth and especially in soft pies there is likely to be a soggy spot about the size of a dollar in the bottom crust.

The electric ovens in one pie shop have metal sheets over the hearth, which warp upon heating and in consequence the operators can only partially fill the ovens and must select the level spots on the hearth for the soft pies.

A cake oven has practically the same requirements as a general pastry oven. I have had no experience on an exclusive cake shop, though a shop in Portland wholesaling cakes uses a semi-portable oven, gas fired, with good results.

Cookie ovens are a special class of appliance and heating methods vary with the kind of cookies made. Cookie ovens that I am familiar with are built to order and are on a rather small scale. The cookies are baked on the one deck where they receive bottom heat only and are then shifted to the other where they receive the necessary top heat for color.

Conclusions:

1. Indirect fired brick ovens do not offer a favorable field in which to campaign for gas business.

2. Dutch ovens offer a field for gas sales that is quite attractive and the business is comparatively easy to secure if the operating conditions in the particular shop are favorable.

3. Reel ovens, gas fired, are one of the most economical methods of straight bread baking.

4. Electric reel ovens are easily converted and the business very easy to secure on account of the economies effected. It may be difficult to secure the first conversion.

5. Electric deck ovens are hard to displace, on account of the investment represented and the difficulty in securing an adequate gas oven.

6. Wholesalers reaching the 5000-loaf daily output are likely to be in line for expansion and should be watched closely.

7. Electric competition on the portable deck ovens has reached a point where a large part of this business has already been lost to the gas industry, and only a most serious effort, backed up by a thoroughly up-to-date oven, will win it back.

8. The baking load is one of the most profitable classes of business that can be secured. It is business belonging to gas fuel for economic reasons. It is business which must be retained and regained at all costs.

9. If the salvaging of the diversified baking load required the designing of new appliances, the gas companies should not hesitate, but at once direct their best thought and experience into the development of a suitable oven.

If all the principal companies on the Pacific Coast were to seriously set to work to design a portable gas-fired deck oven along lines dictated by their own experience and pool their results, surely in two years' time the results of this collaboration would be to produce not only an oven of inestimable value to the industry but we would have increased the understanding of the baking problem in a beneficial way.

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Program of the Celebration of the Societe Technique de l'Industrie du Gaz

We have received the program of meetings and entertainment with which the Societe Technique de l'Industrie du Gaz will celebrate its Fiftieth Anniversary and the Hundredth Anniversary of the advent of gas in France, in Paris, June 24 to 29 inclusive.

We urge any of our members who expect to attend these interesting meetings to notify A. G. A. Headquarters so that we can give them official credentials and assist them in making their visit as pleasant and profitable as possible.

The office of the Secretary of the Congress will be at No. 12 Rue de Clichy, and on Monday, June 23, it will be open between the hours of 10 a. m. and 12 noon, and 2 p. m. and 7 p. m. for registration, issuing of papers, entertainment tickets, etc. The program follows—

Tuesday, June 24—2:30 p. m.—Salle du Theatre du Jardin d'Acclimation
Official opening of the Congress and Exposition

Wednesday, June 25
Excursion by boat from Paris to St. Germain
Visit to gas works at Gennevilliers
Luncheon and reception
Return to Paris by special train

Thursday, June 26
Morning—First meeting of the Congress
Afternoon—Second meeting of the Congress
9 p. m.—Grand ball

Friday, June 27
Morning—Third meeting of the Congress
11:30 a. m.—Placing of wreath on tomb of Unknown Soldier, Arc de Triumphe, by English delegation
Afternoon—Fourth meeting of the Congress
8 p. m.—Banquet

Saturday, June 28
Morning—Reception by Society du Gaz of Paris
Afternoon—Reception at City Hall, Paris

Sunday, June 29
Excursion by special train to Douai and St. Quentin
Visit to gas holder without lifts at Douai
Luncheon at Douai City Hall
Visit to reconstructed gas works at St. Quentin
Return to Paris

Associations Affiliated with A. G. A.

Canadian Gas Association
Date of affiliation—Mar. 25, 1919.
Pres.—C. A. Jefferis, 265 Front St., E., Toronto, Ont., Canada.
Sec.-Tr.—G. W. Allen, 7 Astley Avenue, Toronto.
Conv., Toronto, Ont., Aug. 28, 29, 1924.

Empire State Gas and Electric Association
Date of Affiliation—Nov. 21, 1919.
Pres.—S. J. Magee, Associated Gas & Electric Cos., Ithaca, N. Y.
Chairman Gas Section—F. F. Ingwall, Binghamton Gas Works, Binghamton, N. Y.
Sec.—C. H. B. Chapin, Grand Central Terminal, New York, N. Y.
Annual Meeting, 1924.

Illinois Gas Association
Date of Affiliation—Mar. 19, 1919.
Pres.—J. G. Learned, Public Service Co. of Northern Illinois, Chicago, Ill.
Sec.-Tr.—R. V. Prather, 305 Illinois Mine Workers Bldg., Springfield, Ill.
Conv., 1925.

Indiana Gas Association
Date of Affiliation—April 24, 1919.
Pres.—G. M. Johnson, Northern Indiana Gas & Electric Co., South Bend, Ind.
Sec.-Tr.—E. J. Burke, Citizens Gas Co., Indianapolis, Ind.
Conv., 1925.

Iowa District Gas Association
Date of Affiliation—May 21, 1919.
Pres.—H. J. Carson, Cedar Rapids Gas Co., Cedar Rapids, Ia.
Sec.-Tr.—H. R. Sterrett, 551 Seventh St., Des Moines, Ia.
Conv., 1925.

Michigan Gas Association
Date of Affiliation—Sept. 18, 1919.
Pres.—Geo. H. Waring, American Public Utilities Co., Grand Rapids, Mich.
Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich.
Conv., Detroit, Mich., Sept. 9, 10, 11, 1924.

Missouri Association of Public Utilities
Pres.—C. L. Proctor, Empire District Electric Co., Joplin, Mo.
Sec.-Tr.—F. D. Beardslee, 315 N. 12th St., St. Louis, Mo.
Wiley F. Corl, Chmn., Affiliation Com., Missouri Utilities Co., Mexico, Mo.
Conv., 1925.

New England Association of Gas Engineers
Date of Affiliation—Feb. 19, 1919.
Pres.—C. R. Prichard, Lowell Gas Light Co., Lowell, Mass.
Sec.-Tr.—J. L. Tudbury, 247 Essex St., Salem, Mass.
Conv., 1925.

Gas Sales Association of New England
Date of Affiliation—Oct. 1, 1919.
Gov.—F. A. Woodhead, 689 Massachusetts Ave., Arlington, Mass.
Sec.—J. H. Sumner, 719 Massachusetts Ave., Cambridge, Mass.
Annual Meeting, 1924.

New Jersey Gas Association
Date of Affiliation—April 25, 1919.
Pres.—Raymond W. Lee, Cumberland County Gas Co., Millville, N. J.
Sec.-Tr.—R. A. Koehler, Public Service Gas Co., Newark, N. J.
Conv., April, 1925.

Pacific Coast Gas Association
Date of Affiliation—Sept. 18, 1919.
Pres.—H. R. Basford, H. R. Basford Co., San Francisco, Cal.
Sec.-Tr.—W. M. Henderson, 812 Howard St., San Francisco, Cal.
Conv., Santa Barbara, Cal., Sept. 15-19, 1924.

Pennsylvania Gas Association
Date of Affiliation—April 10, 1919.
Pres.—John A. Frick, Allentown-Bethlehem Gas Co., Allentown, Pa.
Sec.-Tr.—Geo. L. Cullen, Harrisburg Gas Co., Harrisburg, Pa.
Conv., 1925.

Southern Gas Association
Date of Affiliation—May 20, 1919.
Pres.—W. H. Taylor, Georgia Railway & Power Co., Atlanta, Ga.
Sec.-Tr.—J. P. Connolly, 141 Meeting St., Charleston, S. C.
Conv., Wilmington, N. C., 1925.

Southwestern Public Service Association
Date of Affiliation—September 26, 1923.
Pres.—G. W. Fry, West Texas Utilities Co., Abilene, Texas.
Chairman Gas Section—F. C. Armbruster, Southwestern Gas & Elec. Co., Shreveport, La.
Sec.—E. N. Willis, 403 Slaughter Bldg., Dallas, Texas.
Conv., 1925.

Wisconsin Utilities Association
Date of Affiliation—March 25, 1919.
Pres.—G. C. Neff, Wisconsin Power & Light Co., Madison, Wis.
Chairman Gas Section—I. F. Wortendyke, New Gas Light Co., Janesville, Wis.
Exec.-Sec.—J. N. Cadby, 445 Washington Bldg., Madison, Wis.
Conv., 1925.

Geographic Divisions

Eastern States Gas Conference
Date of Formation—April 11, 1923.
Pres.—P. S. Young, Public Service Gas Co., Newark, N. J.
Sec.-Tr.—R. A. Koehler, Public Service Gas Co., Newark, N. J.
Conv., 1925.

COMMERCIAL SECTION

J. E. DAVIES, Chairman — J. P. HANLAN, Vice-Chairman

LOUIS STOTZ, Secretary

MANAGING COMMITTEE—1924

BALL, FRANK L., Fitchburg, Mass.
BRILL, A. P., Pittsburgh, Pa.
BURKE, E. J., Indianapolis, Ind. (Indiana)
BURNS, J. J., St. Louis, Mo.
CANNIFF, R. J., Poughkeepsie, N. Y.
CANTRELL, NORMAN, Chicago, Ill.
COEL, WILEY F., St. Louis, Mo. (Missouri)
CRAFTS, H. C., Pittsfield, Mass. (N. E. Gas Eng.)
CRANKSHAW, J. W., Allentown, Pa. (Pennsylvania)
CURTIS, C. C., Fall River, Mass.
DAILY, E. V., Chicago, Ill.
DANNER, H. E., Houston, Texas (Southwestern)
DOERING, H. A., Mt. Vernon, N. Y. (Empire State G. & E.)
FUGATE, F. S., Detroit, Mich. (Michigan)
GALBRAITH, L. F., Oakland, Calif. (Pacific Coast)
JOHNSON, W. B., Toronto, Can. (Canadian)
JONES, JACOB B., Bridgeton, N. J. (New Jersey)
KARSHNER, G. M., New York, N. Y.
KENNEDY, T. F., New York, N. Y.
KING, THOMSON, Pittsburgh, Pa.
KLOPF, G. C., Chicago, Ill. (Illinois)
MARTIN, E. H., Des Moines, Ia. (Iowa)
MCCONNELL, H. N., New York, N. Y.
PICKARD, B. F., Greensboro, N. C. (Southern)
PHENICIE, C. R., Green Bay, Wis. (Wisconsin)
QUINN, JOHN J., Quincy, Mass. (Gas Sales of N. E.)
RASCH, W. T., New York, N. Y.
SMITH, D. R., Baltimore, Md.
SMITH, W. L., Battle Creek, Mich.
VINCENT, G. I., Syracuse, N. Y.
WEISER, J. A., York, Pa.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Architects and Builders Service—W. A. ADAMS, Chicago, Ill.
Commercial Policy—P. S. YOUNG, Newark, N. J.; CHAS. A. MUNROE, Chicago, Ill.; F. J. RUTLEDGE, Philadelphia, Pa.; R. B. BROWN, Milwaukee, Wis.; P. R. BARNITZ, New York, N. Y.
Home Service—ADA BESSIE SWANN, Newark, N. J.
Salesman's Manual—H. D. VALENTINE, Chicago, Ill.
Sales Stimulation—J. P. HANLAN, Newark, N. J.

The Monthly Sales Service

709 Subscribers as of May 10th

FROM NOW ON WE will keep the membership informed concerning the progress of the New Monthly Sales Service.

It started with the first issue mailed the latter part of April and included a "Plan for May Campaign on Water Heaters;" the first of a series of three articles on "Starting an Industrial Department;". and, a "Home Service Department" section.

Immediately on receipt of the first issue one company telegraphed us that they were enthusiastic about the New Sales Service; another wrote,—"I received the April 15 mailing of the Sales Stimulation Service,—the lay-out is great and I am very much pleased with what I received. If every subscriber follows the instructions contained in this issue and those to follow, there is no doubt in my mind but what the objective of a 50% increase in gas sales by 1926 will be realized,"—still another wrote,— "I want to congratulate you on the get-up of the Sales Stimulation sheets. I can truthfully say this is one of the best mediums to stimulate sales I have ever read."

Such expressions are very encouraging to the men who are giving freely of their experience and time to make this service helpful to the subscribers.

During May two mailings were made, one a special report on the subject of "The Campaign Method of Gas Merchandising" and the other a bulletin which had as its main feature a comprehensive detailed lay-out for organizing and carrying through a Gas Range Campaign.

A service of this character should have the support of every company member of the Association. In practically every situation there are several men who are

directly concerned with the merchandising plans of the company. Each of these individuals should have a copy of the service coming directly to him. It will be not only educational but inspirational as well.

The Sales Departments of gas companies have an opportunity this year to show whether they really have the get-up and pep we think they have. Remember there is a $5,000,000,000 building program being carried on in the country this year. That means lots of new business for the gas companies—get your share.

We would like to know at Association Headquarters, Mr. Sales Manager, what plans you are carrying on.

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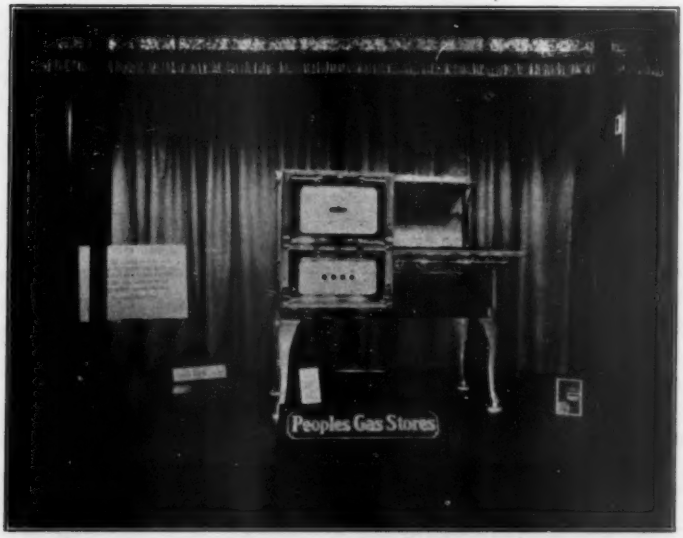
A Display that has Dignity and an Appeal



Gas appliances in an artistic and well designed setting can be made attractive. Select a harmonizing color scheme of drapery, and appliances with neatly lettered cards which tell your story—include prices and terms. It pays to have good window displays.

Gas Company Exhibits at Food Show

THE BROOKLYN UNION GAS COMPANY took advantage of the recent Food Show, held in one of Brooklyn's largest armories, to make a prominent and comprehensive display of gas appliances and gas service.

Located in the center of the armory, with aisles on all sides, their booth was not only prominently placed but attractively designed. As can be seen from the photograph reproduced here, it was in the form of a pergola extending from a semi-spherical latticed dome, the whole being artistically decorated with hanging vines and wisteria.

A large number of the latest types of domestic cooking, heating and lighting appliances were displayed, as well as appliances for the use of bakers, packers and confectioners. The appliances were connected and live demonstrations were given during the show. The exhibit attracted much attention and well shows what can be done to make the display of gas appliances interesting and attractive.

A general view of the exhibit

What is the Matter with our Window Displays?

THE SALE OF GAS merchandise, broadly speaking, is primarily to promote the further use of gas for cooking, water heating, house heating, lighting, industrial processes, etc.

The success of any business depends upon the people who buy its goods, so then, it is the public *we* must interest. We must reach out and get their attention,—we must put our story over to them. If the public likes prunes and we have strawberries to sell, we must sell them on the merits of strawberries and the delightful recipes to which strawberries lend themselves, or they will continue to go on eating prunes indefinitely.

Window and show room display work is one of our best avenues of approach to the buying public and in order to sell them gas service we must understand that public, we must anticipate their needs and make our appeal directly to the public mind, otherwise the finest display, no matter how artistically set, will be a failure.

It is therefore of utmost importance that the person to whom is delegated the responsibility of originating and installing gas company displays be grounded in some of the fundamentals. He should know his merchandise, its use, quality, prices and terms of sale and be thoroughly acquainted with the policies of his company.

The window display is too important an adjunct to successful merchandising to be delegated to one who is not thoroughly interested or willing to give time and thought to the work.

The display should tell the whole story at a glance and give all the information needed to convince the prospective buyer that the product is what he or she wants, that it will give the service required and that the price and terms are within his or her means.

We have an A. G. A. Window Display Club with a membership of over two hundred individuals who are, or should be, keenly interested in this work. From that number of men we should certainly receive each month at least ten or more suggestions and photographic examples of better than the average window displays. Aside from the $10 monthly prize offered by the Commercial Section there should be real pride in submitting contributions.

Gas company displays are usually not comparable with those of other leading merchants in any community. Why is this so? We do not agree with the argument offered that our line does not lend itself to an interesting and artistic display treatment. Gas merchandise can be attractively displayed if one will but give the matter some really careful thought. Our committee is willing to constructively criticise the displays of any member of the club purely in a spirit of helpfulness.

Now members, what are you doing along this line and how can we help you?

We are anticipating a much greater number of contributions. Send us photographs of your displays. If they are not worth photographing, why not make them so? It is the job of the Sales Department—let us not be found wanting.

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The Removal of Organic Sulphur from Gas

Research Institute, Combustion Utilities Corporation.

MANUFACTURED GAS always contains in one form or another an appreciable amount of the sulphur originally present in the coal from which it was made. This sulphur is usually present in the gas in the following forms:

1. Hydrogen Sulphide
2. Carbon Bisulphide
3. Carbon Oxy-Sulphide
4. Oxides of Sulphur

The removal of items (3) and (4), i. e. carbon oxy-sulphide and oxides of sulphur, occurs automatically by the presence of water at various points along the travel of the gas, resulting in the formation of small amounts of ammonium sulphate, ammonium sulphite, carbon dioxide and hydrogen sulphide. The problem, therefore, of removing sulphur from the gas resolves itself in the removal of the H_2S and CS_2 present.

We have today in use several methods of satisfactorily removing practically all of the hydrogen sulphide content in the gas. The problem, however, of removing carbon bisulphide has presented a much more difficult task and as far as is known we have today no commercial method of removing the organic sulphur present.

To a large extent the need of a process for the removal of organic sulphur has not been of paramount importance because gas companies have limited themselves to using coals low in sulphur so that the amount of CS_2 in the gas made

would be low enough to render its removal unnecessary. The value, however, of an economical method of removing organic sulphur from gas is not only apparent today but should become of greater commercial necessity as time goes on.

Sulphur Undesirable

Sulphur in gas is a very undesirable constituent for many reasons. In several operations of the sheet glass industry a gas which is practically free from sulphur is necessary. From tests made, it appears that the total sulphur content of a gas for use in the glass industry should not contain more than five grains of sulphur per 100 cu. ft. of gas. In other cases even smaller amounts of sulphur in the gas produce very detrimental results, particularly in industrial heating operations such as heat treatment of special steels, the making of files, etc.

In the past, gas companies have not been able to use high sulphur coals for several reasons. In many cases the most important reason has been the fact that if a high sulphur coal is used the gas would contain such large quantities of organic sulphur that the sulphur content would exceed the maximum which is allowed by the regulatory bodies in those communities. This has often resulted in compelling gas companies to purchase coals geographically quite distant from the gas works when coals satisfactory except for their sulphur content were available locally at a materially cheaper price.

While this has not been the only reason for not using local coals, developments justify the belief that the other important limitations are fast being eliminated. With the progress that is being made in allowing our gas companies to supply lower B. t. u. gas and with the improvements which are being made in methods of gas manufacture, it is becoming more and more practicable and more and more economical for gas companies to devise every possible means for using those coals which are closest at hand.

In most cases these coals will be found to be appreciably high in sulphur content and unless processes are developed which will provide for the removal of organic sulphur, it will not be possible for our gas companies to use the local fuels available and produce their product at the lowest possible price. It, therefore, appears that not only does the need exist today for methods of removing organic sulphur, but as time goes on such methods will become of greater and greater necessity and unless such processes are developed, the progress of the industry in the more economical manufacture of gaseous fuel will be seriously limited.

A New Process

Of course, it is well known to those in touch with the gas industry that many processes have been proposed for the purpose of removing organic sulphur and several have been tried out on a commercial scale, but up to the present time not one of these has proven economically successful. Tests are now being made on a process which uses aniline as the reacting agent. The discovery that aniline in aqueous solution will react with gaseous carbon bisulphide with sufficient speed to make its use practical for organic sulphur reduction and the application of this discovery to the removal of organic sulphur from gas is the basis of a process developed by Mr. J. M. Weiss of the firm of Weiss & Downs.

The process in question usually follows the oxide purifiers and depends on the removal of carbon bisulphide by passing the gas through aniline or a similar anino body, preferably in water solution or water suspension. The reaction

which takes place may be represented as follows:

$2C_6H_5NH_2 + CS_2 = CS(C_6H_4NH_2) + H_2S$

When aniline is used as an absorbent, thiocarbonilide and hydrogen sulphide are the products produced. Thiocarbonilide is not volatile, remains in the washer and is a valuable by-product which may be recovered and purified. Hydrogen sulphide goes along with the gas and can be removed by known methods or by making the water solution of aniline sufficiently alkaline to absorb the hydrogen sulphide of reaction. This addition of alkali has the further advantage of accelerating the combination by removing from the system one of the products of reaction. In the process as developed other catalyzing agents may be used to speed the reaction and increase the efficiency of the absorption of carbon bisulphide.

One of the important features of the process is that it requires no special apparatus other than gas washers which are already standard practice in the gas industry.

Preliminary Information Secured by Test

In obtaining preliminary information on the effectiveness of this process, small scale tests have been run in the testing laboratories of the Research Institute of the Combustion Utilities Corporation. Several samples of gas were tested by the following means:

The total amount of organic sulphur in the gas was determined in the standard referees form of apparatus after the gas had been thoroughly scrubbed with a 10% solution of cadmium chloride for the complete removal of H_2S. The gas was then passed through wash bottles containing aniline. From this point the gas was passed through additional wash bottles containing the cadmium solution which removed the H_2S formed by the aniline reaction. The gas was then passed through the referees form of apparatus and the organic sulphur content noted.

In the first test coke oven gas containing 7½ grains of organic sulphur per hundred cu. ft. of gas was treated with aniline in aqueous solution and the sulphur content reduced to 3.9 grains. In the second test, where the gas was treated with both aniline and the proper catalyzer, the organic sulphur in grains per hundred cu. ft. of gas was reduced to 1.3. Additional tests indicated the same general results with the same effectiveness in the removal of organic sulphur by aniline plus the proper catalyzer.

Results to Date

The results obtained up to date indicate that this general method has considerable possibility as an economical method of removing organic sulphur. At the present time, additional tests are being run to further substantiate the value of this process and arrangements are also being made to demonstrate the method on a semi-commercial scale.

Of course, while the process appears to work satisfactorily from the technical standpoint, the question of its cost of operation can only be demonstrated by further tests. In this regard, one of the most important items of cost appears to be the loss of aniline due to its volitalization in the gas during the treatment. In this connection there are several possibilities of reducing this item.

It is believed that the diluted solutions of aniline used will not result in excessive volatilization losses. Further, it appears that concurrent flow of the gas and the aniline solution will result in lower volatilization losses due to the fact that whatever aniline vaporizes in the gas,

will react in the vapor phase with the organic sulphur still left in the gas.

While this process is just in the preliminary stages its development is being aggressively carried out because it is believed that it will be of great economic value to those companies which at the present time cannot use local coals because of their high sulphur content. More important than this, however, is the fact that a commercial method of removing organic sulphur from coal will bring us closer to the possibility of all gas companies eventually using those coals which are nearest at hand to their gas generating equipment, and which will result in their producing heat units from gas at the lowest possible price with the greatest ultimate benefit to both the domestic and industrial consumer.

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More About Welding Cast Iron Pipe

Mr. M. R. Thompson, Engineer of the Southern Counties Gas Company, Los Angeles, California, writes in to tell us that the method of joining cast iron pipe described in Mr. C. M. Carter's article, "Welding Cast Iron Pipe at Bartlesville, Okla.," in our April issue, was developed by Mr. Arthur F. Bridge and himself several years ago and has been largely employed ever since on the Pacific Coast. He also promises to give us some interesting data on the installation of 9 miles of 8″ cast iron main to carry gas at 300 lbs. pressure which is now being done.

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Service of Accounting and Technical Committees

The following are typical letters received from our members whose problems have been submitted to our committees:

> "I thank you for your efficient search and successful results of the information sought by me. The cards supplied by Mr. Heyser will serve our purpose.
>
> "Thanking you again and wishing you and the American Gas Association success in its splendid undertakings to serve the gas fraternity, I am
>
> Very truly yours."

> "Thank you very much for your letter of the 14th. I heard also from Mr. Eigenbrot and Mr. Grant. The useful information and suggestions received will be of great assistance.
>
> "I greatly appreciate your kindness and courtesy, and the promptness with which the Coke Committee responded to my request for information."

Are you taking advantage of this service?

Ditch Digging, Machine vs. Hand

THE WESTERN UNITED GAS & ELECTRIC COMPANY of Aurora, Ill., has gathered some interesting figures on the comparative cost of ditch digging for main extensions, by manual labor and by machine digging. This work was done in the new districts being built up near Chicago.

Here there were 19,029 feet of ditch dug between August 1st and December 1st, giving the following cost when using the ditcher.

Feet of ditch dug	19,029
Cost of Labor	$527.45
Cost of Material (repairs, gasoline, oil)	$280.81
Analyzed Cost Using Ditcher	
Labor per ft.	$.0277
Material per ft.	$.0147
Depreciation per ft. (4 year life)	$.0270
Interest per ft. (8% of $4,000 for 28 miles of ditches.	$.0087
Total cost per ft.	$.0781
Total cost for 19,029 ft	$1486.16

Figuring the cost of doing this same work by hand digging, assuming one man at $5.00 for a ten hour day digging on an average of 30 ft. of ditch per day, gives the following cost—

Feet of ditch dug	19,029
Cost of labor	$3,171.50
Total cost per ft.	$.1666
Comparison Hand Digging-Machine Digging	
Cost to dig 19,029 ft. ditch by hand	$3,171.50
Cost to dig 19,029 ft. ditch by machine	$1,486.16
Saving by machine (in 4 months)	$1,685.34

On the basis of this saving in cost, and a considerable saving of time as well, several additional machines have been purchased, designed to dig a ditch 18" wide and 5'-6" deep. This is the machine illustrated here.

The ditcher

Employment Bureau

SERVICES REQUIRED

Wanted by a gas and electric company, young man to do office work who has had experience in ledger work, general routine work, and especially on the complaint or service desk. In reply, please give outline of experience, references and salary expected. Address:
Key No. 022.

WATER HEATER SALESMAN WANTED—A large gas company needs several good water heater salesmen to work on commission basis in Western Pennsylvania. Exceptionally good territory.
Key No. 026.

WANTED—Two experienced salesmen, to specialize on the sale of gas boilers for house heating and industrial uses, by a gas company desirous of increasing its present gas boiler load. Give details of experience and results obtained.—Address A. G. A.
Key No. 039.

APPLIANCE SALESMEN—Calling on Gas Companies to sell tank water heaters as a side line on commission basis. State territory, references and experience. Address A. G. A.
Key No. 042.

WANTED—Experienced gas works foreman to act as assistant superintendent in small gas and electric company in New England. Give full particulars and state salary desired. Address A. G. A.
Key No. 043.

WANTED—Gas main laying foreman for gas company in vicinity of New York. Address A. G. A.
Key No. 044.

SERVICES OFFERED

POSITION WANTED—By-Product, Coke-Oven Executive seeks more responsible connection. Fitted for Chief Chemical Engineer. Assistant-Superintendent or Assistant to Manager. University Graduate. Alexander Hamilton Institute Graduate. Nearly seven years with present 3000 ton plant. Thirty-two years old. Married. Address A. G. A.
Key No. 151.

WANTED—Position of responsibility as Manager or Industrial Fuel Engineer—18 years' varied experience in the gas business. References and service record furnished. Address A. G. A.
Key No. 142.

WANTED—Am open for position as general superintendent, engineer or manager of fair sized property. Fifteen years' experience in combination coal and water gas plants. Experience covers vertical and horizontal coal gas installations, also distribution work. At present am managing plant of five million sendout and have been acting in capacity of assistant engineer. Can furnish excellent credentials from present and past employers. Married. Can report with reasonable notice. Address A. G. A. Monthly.
Key No. 164.

ENG.-SUPT. of one of the largest gas plants in the country would consider change. Desires to locate with company in which opportunities for future advancement are better than in present position. Is a married man. Has technical University training. No particular preference as to location. Address A. G. A.
Key No. 159.

AVAILABLE—Man of executive ability, experienced in all phases of the gas business and sales and advertising work, including agency work on National accounts. Capable of creating, planning and following through all forms of advertising. Prefer locating in West or South Atlantic states. Minimum salary of $4,000. Address A. G. A.
Key No. 167.

WANTED—Superintendent of Distribution seeks similar position high or low pressure. 14 years' experience covering all branches of the work, office, field, and shops. Speaks and writes Spanish. Southern part of U. S. or Latin America preferred but not essential. Address A. G. A.
Key No. 169.

AM OPEN FOR A POSITION of greater responsibility. At present, manager of gas company with over 5,000 meters. Technical training, started in as cadet engineer with one of largest operating companies in U. S. Have eleven years' experience in engineering, construction, distribution and manufacturing, and over four years in commercial, new business and financial as manager. Prefer manager's position in good sized city. Age 40 years and married. Address A. G. A.
Key No. 170.

GAS ENGINEER—Eighteen years' experience in design, construction and operation of gas plants, all departments, manufacture and distribution, also electrical experience in combination plants desires position of responsibility with progressive company. Past six years chief engineer with large gas company. Address A. G. A.
Key No. 171.

EXECUTIVE, with fifteen years' experience in coke oven practice on plants manufacturing surplus gas for city consumption, desires connection with growing public utility either as executive or position leading to same. College graduate, good personality, married. Available on reasonable notice. Address A. G. A.
Key No. 172.

GAS ENGINEER—18 years' experience with 3 largest gas companies in the country, am open for engagement as gas engineer, general superintendent, manager or sales engineer. Excellent references. Address A. G. A.
Key No. 173.

ENGINEER—Twenty-one years' experience in Gas and Electric production and distribution, wishes an opening with a larger gas company or a combination gas and electric company. Eleven years with the United Gas Improvement Co. Highest reference from present connection. Address A. G. A.
Key No. 174.

WANTED—A position as General Manager or Engineer of Gas Property. Have had experience and can produce results in either large or small properties. Can give exceptional references on past record. Address A. G. A.
Key No. 175.

GAS ENGINEER, 40, with thorough training (17 years) in the gas business and real executive ability, wishes to connect up with a live concern in any capacity where technical and commercial ability will count. At present engaged, but could be available on two months' notice. Address A. G. A.
Key No. 176.

WANTED—Executive position by young man with eighteen years' (18) experience in all branches of gas business. Eight years (8) as manager. Past four years, vice-president and general manager of gas company with nearly 10,000 meters. Mechanical engineer. Expect to voluntarily place myself on the market about August 15, 1924. Will accept position as manager of company with 7,000 to 10,000 meters, or assistant manager and engineer, with larger company. Married man. Replies must be strictly confidential. Address A. G. A.
Key No. 177.

WANTED—Position as superintendent of small gas company or combination gas and electric company, or as assistant to superintendent or manager of a large plant. Technical university training. Five years' experience in maintenance and operation of steam, gas and electric plants. Address: A. G. A.
Key No. 178.

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